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ABSTRACT

This project, a multiple case study, was conducted to learn more about the conditions under which teacher collaboration might be expected to occur; to improve understanding of variation in the form of collaboration among teachers; and to understand more about the consequences of such activity on teachers and students. Data were collected from 95 interviews in 4 elementary schools. One of these schools was subsequently dropped for failing to meet selection criteria. The findings, based on 72 interviews in the remaining 3 schools, suggest that consequences of teachers' collaborative efforts are substantial. Extrinsic rewards such as instrumental use of knowledge and support for teacher decision making tended to be limited to information exchange, joint planning, and participatory interactions. Intrinsic rewards were also derived from such encounters but were more strongly associated with deeper levels of joint work. Salient intrinsic rewards included more efficient communication and development of shared meaning, improved teacher efficacy, a sense of belonging, and enhanced understanding of students. Organizational conditions, including principal coordination and support, and collaborative norms in the schools, supported the sorts of teacher-teacher interaction observed. Appendices include a teacher-teacher interaction profile, interview guides, case description assessment form, cover letters, and notes for data analysis. (LL)

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ABSTRACT

Please provide in the space below an abstract of not more than 300 words, single-spaced, written in language that may be understood by the informed layperson.

We sought to understand in teachers' words the nature, consequences and conditions supporting teachers' joint work. A knowledge utilization framework was adapted and guided collection and analysis of data from 95 interviews in four exemplary elementary schools. One school was dropped for failing to meet our selection criteria. Our findings, based on 72 interviews in the remaining three schools, suggest that extrinsic rewards such as instrumental use of knowledge and support for teacher decision making tended to be limited to information exchange, joint planning and participatory interactions. Intrinsic rewards were also derived from such encounters but were more strongly associated with deeper levels of joint work. Salient intrinsic rewards included more efficient communication and development of shared meaning, improved teacher efficacy, a sense of belonging and enhanced understanding of students. Organizational conditions, including principal coordination and support, and collaborative norms in the schools, supported the sorts of teacher-teacher interaction we observed. We conclude that the consequences of teachers' joint work are substantial and suggest that continued monitoring of school improvement and restructuring initiatives will assist in identifying how collaborative norms might be developed.

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TEACHER-TEACHER INTERACTION AND KNOWLEDGE USE

J. B. Cousins, J. A. Ross, & F. J. Maynes

There is widespread agreement that teacher-teacher interaction is a powerful and viable strategy affecting a variety of outcomes in schools. Although much has been written on this topic empirical work has been generally limited to ethnographic descriptions of practice and correlational quantitative research designs. Much remains to be understood about the nature, causes and consequences of teachers working together. In particular, we need to know more about the conditions under which we might expect collaboration among teachers to occur; to improve our understanding of variation in the form of collaboration among teachers; and to understand more about the consequences of such activity on teachers and students. This project has as objectives the following:

1. to describe in rich detail the *form* of teacher-teacher interaction;
2. to illuminate the consequences of teacher-teacher interaction; and
3. to examine the conditions under which collaboration is likely to occur.

REVIEW OF LITERATURE

In the current era of educational reform and restructuring theoretical conceptions of bureaucratic authority and control and top-down orientations toward school improvement are giving way to a fundamentally redefined role for teachers. Key to the renewed perspective is the professionalization of teaching (Barth, 1989; Elmore & Associates, 1990; Tyack, 1990) including teachers' participation in school-wide decision making, heightened discretion and autonomy, and shared power and influence in technical, as opposed to managerial, school matters (Duke & Gansneder, 1990; Hallinger, Murphy & Hausman, 1991; Rosenholtz, 1989a; Shedd & Bacharach, 1991). Concomitant with this change in thinking about teachers' work is an evolving conception of the school administrator's role. Leadership strategies that seek to distribute power, stimulate the development of a shared vision of school purpose, and involve teachers in participatory school-wide decision making are viewed as being necessary pieces of the restructuring puzzle (Barth, 1989; Leithwood & Jantzi, 1990; Murphy, Evertson & Radnofsky, 1991; Sergiovanni, 1989; Shedd & Bacharach, 1991).

Central to this shift in perspective is the concept of teachers' joint work or collaboration. Judith Little (1982) in her year long study of six schools found that school norms of collegiality and experimentation differentiated successful from typical schools. She later reported on the advantages of school-based collaborative training and implementation as contrasted with "pull-out" staff development programs (Little, 1984). Recent research has tended, although not exclusively so, to focus upon the organizational conditions supporting teachers' joint work rather than its consequences (Anderson, 1991; Leithwood, & Jantzi, 1990; Nias, Southworth & Yeomans, 1989; Rosenholtz, 1989a).

While there is research evidence demonstrating that collaborative school cultures exist, other researchers have described the persistence in schools of norms of privacy (Little, 1990), non-interference (Feiman-Nemser & Floden, 1986; Huberman, 1990; Lortie, 1975; Nias et al., 1989), individualism (Hargreaves, 1990) and lack of commitment to opportunities for school-wide decision making (Duke, Showers & Imber, 1980; Duke & Gansneder, 1990; Hallinger et al., 1991), conditions that would inhibit selection of collaborative culture as a vehicle for school reform. For example, in a descriptive interview study of 52 teachers in six schools, Zahorik (1987) found that although teachers spent about 40 minutes per day interacting with colleagues, exchanges were typically shallow and "collegiality stopped at the classroom door" (p. 391) even for trusted friends. Huberman (1990) characterized teachers as "tinkerers" operating independently in adherence to norms of non-interference, who relied more on personal practical knowledge than on interaction

with peers. Leinhardt and Greeno (1986) lent support to teacher independence by elucidating expert teachers' preference for on-the-spot decision making with minimal preplanning. McCarthy and Peterson (1991) demonstrated how teacher-teacher interaction can place severe limits on expectations for change in classroom practice. Hargreaves (1990) developed an explanation of persistent teacher isolation based upon the merits of individualism rooted in an ethic of care and service responsibility. The demand on teachers' time away from class was suggested to be a sufficient deterrent to collaboration. Campbell and Southworth (1990) suggested that teachers are ill prepared to collaborate and lack the capacity to work in groups. Finally, others have commented about the reluctance of teachers to either seek or give assistance from peers lest they respectively admit to or infer limits on competence (Feiman-Nemser & Floden, 1986; Hargreaves, 1990; Huberman, 1990; Little, 1990; Lytle & Fecho, 1989; Nias et al., 1989).

Critics of teachers' joint work as a viable route to reform tend to frame their arguments in terms of reward structures suggesting that collaborative work will diminish intrinsic rewards available to teachers. Clearly, extrinsic rewards for teachers are virtually non-existent in the "flat" teaching career (Fieman-Nemser & Floden, 1986). Indeed leadership strategies focused on the distribution of extrinsic rewards (Blase 1990; Sergiovanni, 1989) including merit pay and career ladder systems installed to enhance teacher performance through incentive have met with less than satisfactory results (Bacharach & Conley, 1989; Shedd & Bacharach, 1991; Tyack, 1990). What is not clear is whether teacher-teacher interaction will act to curtail the availability to teachers of intrinsic rewards.

Some would argue that under the right conditions, teachers' joint work may either enhance the availability of intrinsic rewards for teachers or provide an additional source of them (Feiman-Nemser & Floden, 1986). In an interview study, for example, Lytle and Fecho (1989) reported that teachers involved in a cross-visitation program found their own classes more intellectually challenging, changed their routines, tended to learn more from students, received validation of their own skills, became more reflective, and improved their view of the teaching profession. Kushman (1992) came to similar conclusions in stating that "Rewards were derived from meaningful adult contact, from working together with one's colleagues to solve daily problems" (p. 28). He concluded, as did Rosenholtz (1989a, 1989b) and Louis and Smith (1991) that teachers' joint work can enhance organizational commitment. Other intrinsically satisfying activities include participating in the initiation of new programs, witnessing the motivation of others to experiment and, the generation of new ideas through brainstorming (Little, 1987; Nias et al., 1989; Rosenholtz, 1989b). Another outcome attributable to collaborative work cultures is the development of shared meaning and a collective theory of work (Little, 1990; Nias et al., 1989). Nias and her associates found that "everyday talk was the medium through which shared meanings first evolved and then were continuously and implicitly reinforced" (p. 79). Barth (1989) connected collaborative activity to teacher learning and Rosenholtz and her associates (Rosenholtz, 1989a; Rosenholtz, Bassler & Hoover-Dempsey, 1986) concluded that the ease with which teachers give and receive collegial advice predicts skill acquisition. The link between teacher-teacher interaction and student growth has not been well established (Little, 1998; McCarthy & Peterson, 1989) but some evidence would suggest that an indirect link may exist through enhanced teacher efficacy and teacher satisfaction (Ashton & Webb, 1986; Kushman, 1992; Newmann, Rutter & Smith, 1989; Rosenholtz, 1989b; Sarason, 1990).

The purpose of the present study is to examine in rich detail the impact of teachers' joint work in the implementation of school priorities, educational innovation and curriculum policy. If the enhancement of teacher collaborative culture is to be a viable route to reform we need to develop our knowledge and understanding of its individual and organizational benefits. While there has been considerable research done on teachers' impact on school-level decisions, comparatively little has concerned their influence on other teachers or classroom performance (Little, 1987; McCarthy & Peterson, 1989). Further, we need more studies that explore the subjective world of teachers by relying on them as informants (Campbell & Southworth, 1990; Feiman-Nemser & Floden, 1986; Murphy et al., 1991). The present study addresses these

deficiencies in our knowledge and understanding. Our approach is to examine in exemplary schools the nature of teachers' joint work, its consequences and, most importantly, the link between these constructs. Finally, we were also interested in assessing the conditions in schools which support teacher-teacher interaction.

FRAMEWORK

The framework for the present study integrates prior frameworks used for the study of curriculum and educational policy implementation (Leithwood & Anderson, 1983; Leithwood, Cousins & Trider, 1990; Trider & Leithwood, 1988) and knowledge utilization (Cousins & Leithwood, 1986; 1992). The components of the framework are represented diagrammatically in Figure 1.

Student outcomes (Component 1) are shown to depend on the actions taken by teachers (implementors) to implement educational innovation, school initiatives or curriculum policy. These actions are largely a consequence of the teachers' use of knowledge for instrumental and conceptual purposes (Component 2). The specific strategies employed by teachers for the purposes of implementation (Component 3) are seen to be a function not only of various tractable and fixed organizational factors (Components 6 & 7) but, also, characteristics of the target for change itself (Component 4) as well as how the target is interpreted in view of personal and professional characteristics (Component 5). Each of the components of the framework is described in more detail below:

Student outcomes. Defined according to a wide range of student goals consistent with current Ontario Ministry policy--student achievement in knowledge acquisition, skill development and growth in the affective domain including self-esteem, appreciation of others, communication and interpersonal relations, and so forth. This category of variables are considered to be effect variables and is not central to the purposes of the present study.

Teachers' knowledge use. Since we are interested in effects on teachers of collaborative activities it is reasonable to use a knowledge utilization framework. Broadly, utilization (use) has been conceived to be *instrumental* (decision oriented) or *conceptual* (educative) (Cousins & Leithwood, 1986; Weiss & Bucuvalas, 1980). Knowledge use involves processing of information about the innovation or policy to be implemented. That is, new knowledge is integrated into the teacher's existing schema concerning the target for implementation which might include teaching ideas, goals for students, appraisal techniques, and the like. This information processing leads to the construction of an enriched conceptual framework and intention to implement in particular ways (Cousins & Leithwood, 1986; Kennedy, 1984). Greene (1988) reported that *affective* benefits can also occur in response to processed information. She investigated stakeholder participation in evaluation activities and found that the use of data was sometimes manifest in enhanced feelings and the provision of voice to those with less power in organizations.

Implementation processes. Generally, implementation is viewed as a dynamic process that is not only influenced by factors specified in the model but by feedback derived from interaction with and use of the target for implementation (e.g., innovation). The efforts of implementors, after all, are likely to make or break the success of a change project (Darling-Hammond, 1990; Fullan, 1991; Louis & Dentler, 1988; Louis & Miles, 1990). Especially important for implementors is sufficient latitude in decision making so as to foster local development, interpretation and ownership of innovations (Huberman & Miles, 1984; Little, 1982; McLaughlin, 1990) and "social processing" of knowledge about it (Cousins & Leithwood, 1992; Louis & Dentler, 1988).

Knowledge use will be most directly influenced by what teachers do and the processes in which they engage in order to implement planned educational change. One set of these processes

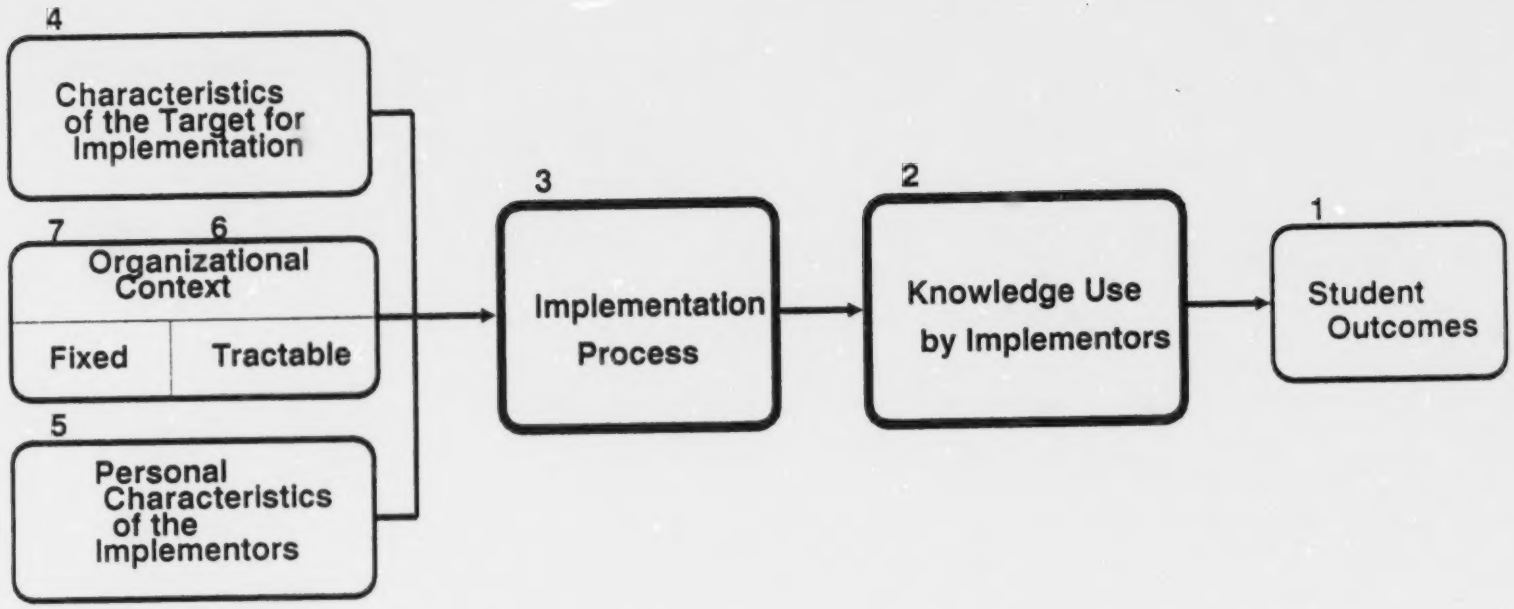

Figure 1: Conceptual Framework

has to do with the actions of agents within the school, particularly teachers. Our greatest interest lies in distinguishing individualistic from collaborative responses to the target for implementation. Little (1982) observed four types of collaboration in successful schools: talking, observing, teaching or disseminating, and planning. Although others have found this categorization of collaboration to be useful (e.g., Leithwood & Jantzi, 1990; Zahorik, 1987) it is reasonable to construct a continuum corresponding to depth of collaboration. Another dimension of teachers' joint work to consider would be task. Collaboration might take place at any or all phases of the teaching-learning process (i.e., planning, objective setting, delivery, assessment) and might include the actions of school agents such as administrators (principal, vice principal) and in-school support staff (academic resource, teacher librarian).

Characteristics of the target for change. Variables within this component correspond to the extent to which the innovation, school initiative or policy is clearly specified and accessible by those responsible for implementation. Such variables are likely to affect directly implementation processes. This is a set of antecedent factors that will influence directly the user's interpretation and implementation of the target for change. For example, the clarity of the target, its perceived relevance to teacher goals (i.e., value), its scope (e.g., degree of teacher change required, proportion of staff affected), and its completeness may each affect implementation processes (Fullan, 1991; Huberman & Miles, 1984; McLaughlin, 1990).

Personal characteristics. Another set of characteristics likely to affect implementation have to do with the personal characteristics of those expected to implement. Demographic and background variables such as family considerations, years of experience, type of experience, education (Darling-Hammond, 1990), and motivational characteristics, including teacher commitment (Crandall, 1989) and teacher efficacy (Ashton & Webb, 1986; Stein & Wang, 1988) are examples of variables associated with implementor personal characteristics.

Organizational characteristics. Implementation processes are also likely to be affected by organizational factors. Some of these, such as school size and characteristics of the student population (ethnicity, SES), are fixed. Others are tractable variables that can be manipulated. The more important work setting characteristics include the strength of collaborative norms (Little, 1982; Louis & Dentler, 1988; Rosenholtz, 1989a), opportunities for teacher learning (Ingvarson & McKenzie, 1988; McLaughlin, 1990; Pink, 1990), socialization processes, commitment/loyalty to the organization (Rosenholtz, 1989a, 1989b), shared goal setting, and clarity of goals (Fullan, 1991; Louis & Miles, 1990). A prominent variable is building and district level leadership (Crandall, 1989; Fullan, 1991; Huberman & Miles, 1984; Leithwood, Begley & Cousins, 1990; Little, 1984; Louis & Miles, 1990; Wellish, MacQueen, Carrier & Duck, 1978). Other organizational factors are the existence of competing initiatives (Anderson & Fullan, 1989), resource availability (Fullan, 1991; Johnson, 1990), and community support (Louis & Miles, 1990). Also included in this set are district characteristics (which can also be viewed as fixed and tractable).

RESEARCH QUESTIONS

Questions for research can be articulated more specifically in view of the framework for the study.

1. **Nature of Joint Work:** In what ways do teachers interact with one another to implement educational innovations or policies? In what specific forms of collaboration do they engage? Which activities in the teaching-learning process are likely to be subjected to teacher-teacher interaction?

2. **Consequences of Teacher-Teacher Interaction:** What effects on teachers are apparent as a consequence of joint work? How is teacher decision making affected? In what ways are teacher conceptions of teaching and learning altered? Do different forms of collaboration lead to different effects on teachers? Are effects on teachers beneficial as a rule? What are deleterious effects of collaboration, if any? What effects on students can be attributable to collaborative implementation by teachers?

3. **Conditions Supporting Collaborative Implementation:** What factors foster collaboration among teachers? To what extent do characteristics of the innovation predict teachers working together? What impact on implementation might be attributed to teachers' personal characteristics? What is the relative influence of manipulable versus given organizational characteristics in determining patterns of collaborative work? Do different forms of collaboration depend on different sets of factors?

METHOD

SAMPLE

The project is a multiple case study involving four schools. The schools were selected on the basis of their performance during a previous phase of an ongoing, multi-year in-service project designed to improve childrens' thinking skills in the junior division in more than 40 schools (see Cousins & Ross, 1990). In that project, grade five students were given student achievement tests prior to and following instruction in decision making, the focus for a series of workshops for the teachers.

The sample for the present study was purposive since we wanted to ensure that we would be examining teacher-teacher interaction under different circumstances. Schools were selected according to two criteria: (1) they were in the 90th percentile on student achievement in decision making; (2) they ranked either high (2 schools) or low (2 schools) on a measure of staff collaboration developed as part of the previous project (see Appendix A). We reasoned that exemplary schools are more likely to exhibit collaborative working norms. Since many researchers have investigated the persistance of individualism in schools we decided to sample as a comparison two exemplary schools likely to be characterized by norms of privacy.

At each of the selected schools several staff were interviewed during two site visits. Some staff were selected purposely due to their roles while others were selected at random from staff lists. Participation in the interviews was voluntary. In total 95 private interviews were conducted during the course of data collection. Subsequent to the interviews, all staff were asked to read a brief case report on their school and to complete a questionnaire concerning the reports validity. Sixty-three (55%) staff completed and returned questionnaires. Table 1 provides background information on each of the schools and an indication of who participated in the research study.

TABLE 1

Background Information and Data Collection by Site

	High Achievement			
	Low Collaboration		High Collaboration	
	Bradgate	Douglas	Carnegie	Peterson
BACKGROUND				
Number of Students	409	541	554	520
Range of Grades	K-6	K-8	K-6	K-8
Number of Teachers	22	31	31	31
Gifted Program	No	No	Yes	Yes
ROUND 1 INTERVIEWS				
Principal/Vice Principal	2	2	2	2
Teacher Librarian	1	1	1	-
Academic Resource/Sp. Ed.	1	1	1	2
Primary Teachers	5	3	2	2
Junior Teachers	3	3	6	4
Intermediate Teachers	NA	1	NA	2
TOTAL	12	11	12	12
ROUND 2 INTERVIEWS				
Principal/Vice Principal	1	1	2	3*
Teacher Librarian	-	1	1	1
Academic Resource/Sp. Ed.	3	2	1	-
Primary Teachers	7	4	4	4
Junior Teachers	1	2	4	3
Intermediate Teachers	NA	2	NA	2
TOTAL	11	12	12	13
TOTAL INTERVIEWS	23	23	24	25
Case Report Questionnaire Returns	12	19	12	20

*Includes former vice principal, currently principal at nearby elementary school.

INSTRUMENTS

A generic, semi-structured interview protocol was designed to collect data during Round 1 or interviewing in all four schools (see Appendix B-1). The instrument was based on the framework outlined above. It required the respondent to select an innovation within their school (respondents were not compelled to select the thinking skills innovation), to describe it, to discuss its consequences for students and faculty, and to identify factors that lead to its success or failure in the school. They were then asked to repeat this process for another innovation of their choice. Finally, respondents were asked to indicate to what extent they believed their school was "successful," why, and how it got to be that way.

Interview protocols specific to each school site were developed following Round 1 (see Appendix B-2.1 through B-2.4). The protocols were designed to investigate issues that remained unclear to the research team following Round 1. They were also designed to address more closely the issue of school success and the reasons for it. Several questions and probes formed an "add-on" list that were not specific to the school and were asked of all schools. All interviews were audio tape recorded.

Subsequent to Round 2, case reports were written for each site. The reports were written with a parallel structure with identical headings and subsections; the substance of the reports varied considerably. A questionnaire required of respondents to read the reports and to indicate their extent of agreement with each of its subsections with a rating and to provide written comments. The questionnaire appears in Appendix B-3. A version of the case reports appears in the "Within-Case" section of the present study's report of findings.

PROCEDURE AND DATA PROCESSING

Schools were selected according to the criteria specified above and principals were invited by letter (Appendix C-1) to have their schools participate in a study of "exemplary schools." It was explained to the principals that their schools were chosen on the basis of student growth in decision making performance from the previous thinking skills project. The letters made assurances of confidentiality and indicated that the research team soon would be in contact by telephone to discuss the matter. Principals were telephoned one week after having received the letter. All principals agreed to participate in the study when contacted by phone. Site visits were conducted by a team of three senior researchers (authors). Interviews were conducted in two rounds.

Round 1 interviews. The school administration, librarian, non-classroom resource persons (academic resource, special education, music) and teachers selected at random from school staff lists, were asked to be interviewed in Round 1. Schools were informed that interviews would be approximately 40 minutes long, private and audio tape recorded with the consent of the interviewee. At each site interviews were set up in four blocks of three. One researcher interviewed 4 non-classroom personnel, while the other two interviewed 8 classroom teachers (see Table 1). Classroom coverage was provided by supply teachers commissioned by the research project. Interviews took place in the privacy of administrative offices or in other private locations such as the nursing station, school libraries, and so forth.

Fieldnotes were recorded on the Round 1 interview protocol (Appendix B-1) and the interviews were tape recorded. Following the site visit, researchers transcribed their own field notes. Responses for each question were summarized in electronic form as the interview protocol was reviewed as the tape was replayed through audio headphones. A set of instructions and electronic template (Appendix D-1) were used to assist the researcher in summarizing the tape. By convention, responses to each question were described (normal text), direct illustrative quotations were <u>underscored</u> and any interpretations or comments by the researcher were printed

in bold text. Each interview took from 1 to 2 hours to summarize and continual review and discussion of the framework helped researchers to ensure that all relevant information was being summarized.

Within one week of the site visit, the research team met to share interview summaries and discuss the case. The meetings lasted about 2.5 hours on average. Researchers read the eight data summaries provided by the other two team members. Subsequently, the case was discussed in the light of the framework. Notes were recorded by one of the researchers. Particular attention was paid to themes that seemed to be emerging in the data and to uncertainties about the case that needed to be investigated further. Immediately, the researcher prepared draft of a site specific interview protocol and shared it with the research team. Revisions to the draft were made and arrangements were made for Round 2 interviews. As mentioned above, some candidates to be interviewed were identified because they were viewed to be particularly articulate and/or knowledgeable about key issues to be addressed. The remaining interviewees for Round 2 had not been interviewed previously and were selected at random from staff lists.

Round 1 interviews and data summaries were completed within one month and each site was spaced apart by about one week. This procedure helped researchers to differentiate one site from another.

Round 2 interviews. Once the fourth site had completed Round 1, the second round of interviews began. Interview protocols developed for each site appear in Appendix B-2.1 though B-2.4. Identical procedures for site visits were followed for Round 2. Prior to the visit researchers reviewed data summaries from Round 1 for those interviewees they were likely to interview for the second time. Also, researchers took care to thoroughly acquaint themselves with the unique content of each site's interview protocol.

Round 2 interviews were summarized using site specific electronic templates, as in Round 1. The research team met to share summaries and discuss the case. Again, attempts were made to process the data within one week of the site visit. During the research team meetings, one researcher took notes summarizing the case. Subsequently, a draft 5-6 page case report was developed for each site. The draft was circulated to the research team and reviewed for revisions.

Case reports. The case reports for each school were each written according to a standard format. In order to protect confidentiality, the reports were kept at a reasonable level of detail. But they each strived to present the main themes for the case as deliberated by the research team.

Enough copies of the reports were printed for all professional staff at each site, including those not interviewed. The principals at each site were sent a bundles of packages for staff with a covering letter (Appendix C-2). Each package contained the case report corresponding to the site, a covering letter providing instructions (Appendix C-3), a two page questionnaire (Appendix B-3) to be completed anonymously by staff, and a stamped, addressed enveloped marked CONFIDENTIAL to be mailed to the research team. Questionnaires were identified by the fictitious school name and colour coded for ease of processing.

Miscellaneous comments and procedures. The research team noted that during site visits many questions were repeatedly asked by respondents. In particular, staff were curious about the purpose of the visits and the intended uses of the data. While the researchers took steps to clarify these issues prior to each interview, it was decided that a blanket memo should be prepared and distributed to each school. That memo appears in Appendix C-4. It should be noted, however, that staff were extremely cooperative and forthcoming in the interviews. No one refused to be tape recorded. One teacher librarian declined a second interview because of competing commitments. In one or two instances previously identified interview candidates were unable to be interviewed due to illness or other commitments. In all cases, these interviews were replaced

with other personnel. Out of 95 interviews 3 were not audio taped due to technical failure. In such cases, the researchers necessarily relied on field notes to generate interview summaries; since these were done very soon after the site visit the quality of the summary was found to diminish only modestly.

Finally, as noted in some of the correspondence (e.g., Appendix C-2) our original plan was to visit each site for a third time on a professional activity day to discuss the case report and obtain further data on its validity. In fact, these visits were scheduled in each of the schools, but having received a substantial and positive response to the case report through the questionnaire, the research team decided that the validity of the case reports had been sufficiently established (see Results reported below) and that the meetings would be redundant. The principals were telephoned and informed that the meetings would not be necessary but that the research team would be happy to visit the school should the staff wish them to do so. In each case, the principals decided that the time might usefully be spent engaging staff in other activities, especially in view of the research team's promise to provide a summary of the overall study to participants upon completion.

PLAN OF ANALYSIS

Interview data coding. Interview data were analyzed according procedures adapted from Miles and Huberman (1984). This particular approach to qualitative research methods might be considered "soft-nosed logical positivism" (p. 8). The interview data as collected and summarized were bounded by the conceptual framework for the study. The interview summaries formed the basis for analysis. These data were coded according to an elaborate coding scheme (Appendix D-2 and D-3) based on the framework.

The data coding process was conducted in several steps. A procedure for coding was developed that allowed for the application of single codes or pattern codes in a causal sequences to "chunks" of text. Chunks of text corresponded to part sentences, sentences, multiple sentences or paragraphs of text that address a single theme or issue. In practice, chunks most often corresponded to paragraphs in the data summaries although the researchers' concern for allowing respondents to explore tangential issues had direct implications for chunking. Each code had both "first" and "higher order" elements. First order elements corresponded directly to the components of the conceptual framework for the study. Higher order elements corresponded to variables within each of the components. Pattern codes were structured in such a way as to allow the data analyst to specify whether the inferred casual influence was positive or negative and which variables were considered in the sequence to be independent (cause) or dependent (effect) (see Appendix D-2 and D-3 for detailed specification of the coding procedures and codes).

Preliminary codes were developed and applied to Round 1 interview summaries. Researchers were initially provided with a set of eight interview summaries randomly selected by a staff person not on the research team. Researchers remained blind to the identity of a common data summary. This and other summaries were used to assess the reliability of the data. Researchers then met to discuss the common data summary, issues of reliability and revisions (additions, deletions) to the coding scheme. A second similar iteration occurred with Round 1 interview summaries. Two researchers participated in this iteration and additional common data summaries were coded. The next iteration had codes applied to Round 2 data summaries and marked the completion of data coding. The three researchers met to discuss the codes applied to a common interview summary in Round 2. When coding was complete, 6 of the 95 interview summaries had been coded by all three researchers. In most cases 2 of the researchers were blind as to the identity of the common summaries and the third was provided with the identity before hand.

Reliability of coding procedures. Researchers developed a growth scheme in order to assess the reliability of the coding (see Appendix D-4). The scheme was comprised of four dimensions

each ranging from low to high agreement and scored from one to three: agreement about first order codes; agreement about higher order codes; agreement about causal inference; and agreement about chunks. The scheme was applied to each of the six common data summaries and reliability data were recorded for and entered on the computer for statistical analysis.

Table 2 displays the results of analyses corresponding to coding reliability. Agreement for each of the four dimensions in the reliability scheme (Appendix D-4) is expressed as a proportion of total possible agreement. One hundred and thirty-seven chunks over six interview summaries formed the basis for the analysis. Table 2 provides summary information as well as information disaggregated to the interview summary level.

The results were only moderately encouraging. On two of the four dimensions, first and higher order codes, agreement fell below 50%, while on the other two, agreement reached moderately high levels. While agreement about first order codes was poor, it should be noted that many disagreements were moderate (i.e., off by one or two codes). Our performance scheme may have been unduely rigorous for first order codes. On this dimension, coding performance varied substantially from one interview summary to the next; while the iterative process used to code the data allowed for "double coding" (in the present case "triple" coding) and sharpening and refinement of codes (Miles & Huberman, 1984), some interviews were simply more difficult to code than others. Agreement was found to diminish for Round 2 interviews which were based on interview protocols unique to each of the schools.

A similar pattern was found for the higher order code dimension, but errors in coding agreement were more severe for this category. This may be partially explained by the significantly greater opportunity for variation introduced by higher availability of these codes. Variation over interviews was less problematic for the remaining two dimensions. Coders were generally consistent in identifying causal patterns in the data and very consistent in delineating the chunk to be coded.

While reliability analyses revealed relatively poor results, there is reason to be optimistic. Many of the disagreements about codes were attributable to systematic differences. That is to say, coders were coding the same information consistently with different codes. More importantly, there appeared to be reasonably consistent assignment of first order codes for the two components of our conceptual framework that were central to the research: *implementation processes* and *knowledge utilization*.

How do the observed levels of agreement compare with other research projects? Very few projects tend to report explicitly their levels of agreement among coders when discussing qualitative data analysis. Miles and Huberman (1984; p. 63) suggest that reliability might be assessed using the following formula:

$$\text{reliability} = \frac{\text{number of agreements}}{\text{total number of agreements plus disagreements}}$$

They recommend that intra-coder reliability "should be up in the 90 percent range." That formula was found to be inadequate for the present purposes since the term *agreement* was not explicitly defined (agreement on first order codes? causal patterns? chunking?) and because three coders instead of two were employed in the present study. The authors are aware of only one other study in which a reliability scheme similar to the present one was used (Cousins & Leithwood, 1992). In that study, higher levels of agreement were reached but only two coders were compared and the data were written responses to an open-ended questionnaire item, as

TABLE 2

Reliability of Data Coding Average Proportion Full Agreement
by Interview Summary and by Reliability Dimension
(N=137 Chunks of Text)

Interview Summary	Average Proportion Agreement		First Order Codes		Higher Order Codes		Causal Patterns		Chunking	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Round 1 Interviews										
Summary 1 (N=26)	.62	.24	.65	.42	.29	.35	.65	.34	.88	.26
Summary 2 (N=17)	.49	.15	.21	.25	.09	.20	.76	.31	.88	.22
Summary 3 (N=20)	.56	.20	.33	.37	.25	.30	.73	.34	.93	.18
Summary 4 (N=35)	.60	.28	.46	.41	.41	.35	.73	.31	.80	.25
Round 2 Interviews										
Summary 5 (N=20)	.48	.22	.23	.34	.25	.41	.68	.29	.78	.26
Summary 6 (N=19)	.68	.20	.55	.37	.47	.31	.79	.30	.89	.21
TOTAL	.58	.23	.42	.40	.31	.35	.72	.31	.85	.24

NOTE: p value = (x-1)/2, where x = scale score form 1 to 3.

opposed to interview summaries. Given the nature of errors and the relatively stringent reliability assessment scheme we used, we conclude that sufficient levels of reliability were achieved.

Validity of case reports. Table 3 shows the results from the survey of school staffs concerning the accuracy of the respective case reports. The data strongly support the claim that the case reports were accurate reflections of each of the schools. The comments from the survey appear verbatim in Appendix E-1.1 through E-1.4. A quick perusal of these comments confirms the support for the reports. Many comments added information missing from the reports but, with the exception of a very few respondents, did not refute what was stated.

Oneway analysis of variance revealed that there were no significant differences in accuracy ratings attributable to school site. For two report subsections there were F values that approached statistical significance ($.05 < p < 1.0$). These corresponded to comments about *school administration* and the *summary comments*. Table 3 shows that respondents from Peterson Elementary believed that the report concerning administration was slightly less accurate (mean = 5.5) than did respondents from other schools. Comments in Appendix E-1.4 reveal that the case for strong local instructional leadership and for good dynamics between the previous vice-principal and the principal may have been overstated somewhat. Table 3 also shows that respondents at Douglas were less convinced about the accuracy of the summary comment section of their report. Written comments in Appendix E-1.2 revealed that there did not appear to be consistent issues to which respondents took exception. Only a few comments were provided and they focused on leadership and staffing issues.

Analyses. Once the data coding was complete, a data entry clerk applied the codes to the text in electronic form using a computer program for analyzing qualitative data called *Text Analysis Package* (TAP) (Drass, 1986). TAP allows for the frequency of codes to be assessed, and for sorting and printing specific sequences of codes. The program was used to prepare data from each case for within-site analyses, which in turn fed directly into cross-case analyses. Within-cases, data were sorted by implementation process and knowledge use codes. Causal relationships were noted and illustrative quotations were located. Data summaries were displayed within-cases on large single page charts. These charts facilitated the cross-case analyses.

RESULTS AND DISCUSSION

The within-case results for the study are organized into four sections corresponding to the four cases. Each is organized into subsections on organization, community, staff, administration, professional development, instruction and summary. These descriptions resemble closely the case reports sent to schools as a validity check.

WITHIN-CASE SUMMARIES

Bradgate Elementary School

Organization. Bradgate Hills is a K-6 school with about 400 students and more than 20 administrative and teaching staff. Primary and junior programs are offered at Bradgate in addition to special education programs. The building is about 25 years old and is in good repair. There are a few portable classrooms on site but enrolment has been on a gradual decline in the school in recent years. The physical structure of the building is conducive to the effective organization of classes. Classes are roughly organized by division and in some cases, classes within grades are located adjacent to one another. The staff room, although small, is a very popular place to be at Bradgate. Staff meetings are held in the library which is much larger and better equipped for big groups.

TABLE 3

Average Ratings of Accuracy of Case Reports
by Section and by School Site

Case Report Subsection	School Site							
	Bradgate (N=12)		Douglas (N=19)		Carnagie (N=12)		Peterson (N=20)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Organization	6.33	0.78	6.17	1.04	5.50	1.31	6.40	0.94
Community	6.50	0.90	6.00	0.77	6.42	0.90	6.20	0.77
Staff	6.50	0.52	6.06	1.21	6.25	0.97	6.55	0.76
Administration	6.08	0.90	5.83	1.34	6.58	0.51	5.50	1.32
Prof. Development	6.58	0.51	6.28	0.57	6.17	0.83	6.25	0.97
Instruction	6.33	0.98	6.00	0.91	6.17	1.03	6.35	0.81
Summary Comments	6.75	0.45	5.71	1.83	6.58	0.51	6.40	0.75
TOTAL AVERAGE	6.44	0.42	6.01	0.67	6.24	0.36	6.24	0.60

NOTE: Scale = 1 Not accurate to 7 Very accurate.

Community. The school is located in a suburban community within a generally homogeneous middle to upper class neighbourhood. Recently, subsidised housing projects and trends of broken homes and single parent families have had noticeable effects on the make-up of the school. However, there are many parent volunteers in the school and the community generally is concerned about educational issues and supportive of school functions.

There is a strong sense of tradition at Bradgate. Many teachers live in the area and families have lived here for generations and are proud of their community. Some families that move to other communities even make arrangements for their children to continue attending Bradgate. The community is proud of their school and work to maintain its image as a leader within the board.

Staff. Bradgate Elementary has a fairly stable staff although it has undergone modest staff turnover over the past several years. All staff categories have been affected and replacements have been mostly experienced teachers from other schools, although some teachers have come to Bradgate straight out of teachers college. The job of finding suitable replacements has been made relatively easy by virtue of Bradgate's reputation in the board; the school and its neighbourhood are known to many as a desirable place to work and there are generally many applicants for vacancies.

The staff at Bradgate are extraordinarily open, warm and willing to share. This is particularly evident among those helping newcomers acclimatize to the school. Professional and support staff tend to go out of their way to make newcomers feel welcome, especially teachers in their first year of teaching. For the latter group, informal mentoring arrangements have naturally occurred. The staff as a whole tend to hold high expectations for newcomers and encourage their participation and involvement in leadership activities. Although the staff do not socialize much outside of the school, they do hold in high esteem opportunities to celebrate and to be with one another on special occasions and planned social events. There are no cliques at Bradgate. Staff tend to get to know each other regardless of role or location within the school. The small staff room sometimes encourages people to chat with one another on an informal basis.

There is a sense of pride and loyalty in the school which derives mainly from its longstanding recognition as a leader in the board. Teachers do not apply to work at Bradgate unless they are willing to work hard and really give of themselves. They somehow know that the school is nowhere to be if you are interested in "coasting." When staff come to the school they generally stay for long periods of time. The teachers have a sense of direction and responsibility, and although staff developed an official school mission, it seems likely that an unspoken way of doing things was present anyway.

Administration. The principal at Bradgate arrived on the scene about two years ago and in his short stay has managed to ensure that the school continues with its high standards. His focus has been one of making sure that staff have adequate resources and supporting collaborative staff decision making. With staff the principal developed the school mission statement. He supports them in their goal setting activities and encourages leadership within the school. There are expectations that people attending external professional development activities will disseminate them to the staff. This is sometimes done through informal channels and sometimes on more formal occasions. For example, the principal makes a point of ensuring that a portion of the agenda at monthly staff meetings is devoted to professional development. The principal also helped to set up a staff advisory council which is responsible for determining staff development activities.

The adminstration at Bradgate has undergone some changes this year with the acquisition of a new vice-principal. Similar to his predecessor, the vice-principal works in concert with the principal to maintain the administrative thrusts described above.

Professional development. The staff are involved in a wide variety of professional development activities, some of them on an individual basis, some done as a staff or as a division. Individual initiatives include attending personally appealing central board inservice sessions, additional qualification courses and graduate programs.

Many local initiatives involve several staff. Staff enjoy working together implementing projects. In some cases, individuals have generated sufficient enthusiasm over specific programs so as to involve colleagues, directly or indirectly. A case in point is the Education Through Music program, an additional qualification course initially attended by the music teacher and subsequently taken by several other staff members. In this case, the application of the program in the school by the music teacher, in addition to her enthusiasm, fostered its visibility and attractiveness to other staff.

Other programs, such as the school board's push on science boxes, have been introduced to selected teachers who, following formal and informal dissemination to colleagues, have received support to press on from both staff and administration. Finally, some initiatives are supported with funds from the central board. The acquisition of computer hardware and appointment of an on-site coordinator for staff development is an example.

Instruction. Sharing instructional materials with colleagues is common at Bradgate Elementary. In addition, many teachers exchange ideas on informal occasions (hallway, breaks, etc.). Although these ideas and materials generally are introduced into individual programs by the teachers, a significant proportion of the staff engage in what might be viewed as deeper levels of collaborative work. Such work, sometimes connected with the partners-in-action program, often takes the form of cooperative planning of units, the division of labour, and individual responsibility for setting up and implementing learning centres. Debriefing sessions are held generally after the unit has been implemented and some discussion of student evaluation might take place. Some teachers have taught together with combined classes or rotate with the children through all of the learning centres. These collaborative activities help to reduce individual workloads, foster the brainstorming of new ideas from different perspectives and help teachers to develop their own knowledge and skills. Sometimes teachers are even able to learn more about individual students through discussions with teaching partners.

The Partners-in-Action program is very congruent with such initiatives. The program was not well implemented by the previous librarian but is strongly supported by the current librarian who began in the role last year. Most teachers are very interested in developing and implementing partners units although the librarian's time is in demand.

Summary comments. Bradgate Elementary School is a school "continuing the tradition." Teachers would be proud to have their own children educated at the school (a particularly stringent criterion). People enjoy working at Bradgate and with the current good mix of staff and continued strong leadership the school is likely to enjoy success for many years to come.

Douglas Elementary School

Organization. Douglas Elementary School is a K-8 school with almost 550 students and about 30 administrative and teaching staff. Primary, junior and intermediate programs are offered at Douglas in addition to special education. The building is fairly modern and in good repair. There are a number of portable classrooms on site. Most of the classes are grouped by division and the school has a large library resource area with a newly attached computer lab.

Community. The school is located in a suburban community-within-a-community. That is to say, it resides in fairly homogeneous, predominantly caucasian, middle-class neighbourhood, nestled within a larger, more multi-ethnic, community. Many of the teachers and almost all of

the students live nearby. Only children in special education programs are "bussed in." Generally, the parents of students are concerned about educational issues and organized and active in the school community. Many parents serve as volunteers in the school and a large number show up for parent-teacher nights, school concerts and other school functions.

Staff. Douglas has undergone a major change in staffing in the past two years. Over half of the staff have been replaced by a mixture of individuals brand new to teaching and those with former teaching experience. Staff turnover has occurred for a number of reasons, the most salient of which was loyalty to a former principal who help to arrange staff transfers to his new school. The present staff at Douglas are in many ways still getting to know one another. They sometimes work together on instructional matters and although there are no firmly established cliques among staff, some groups socialize with one another quite regularly. Generally, however, everyone is made feel welcome to join in.

Although there is only a developing sense of loyalty to the school, on occasion staff have rallied to support one another over sensitive, professional issues. A case in point has to do with student discipline problems that emerged last year under a prior administrator. The problem escalated into several relatively intense confrontations involving students, parents, teachers and administrators. Many staff provided professional support for one another as they collectively tried to sort out the issues.

With so many new staff from diverse backgrounds, there is not yet a strong sense of mission at the school. Indeed, there is some variation in philosophy about educational issues. Some staff are fairly "traditional" in their approach to instruction while others are relatively "progressive." This is not to say, however, that there are well defined factions among the teachers. On the contrary, philosophical issues are not often addressed by staff nor do they pose significant problems for anyone.

Administration. The adminstration at Douglas Elementary has undergone some significant changes over the past few years but has settled into a fairly stable unit at present. Leadership activities that have been most visible this year include early and firm responses to the discipline problems mentioned above, establishment of a staff advisory committee, the compilation of staff preferences for professional development activities and follow-through on those preferences. The current adminstration is well liked by staff and, given the high level of staff turnover, continue their focus on some fairly basic, "nuts and bolts" school needs. They operate efficiently and have been successful in securing resources from central coffers to help with some school needs.

Professional development. In varying degrees staff work together. Sometimes this involves attending school system level inservice sessions together and sometimes it means working on projects in the school. The development of computer literacy among staff is an example of a project that involved most staff. They attended central workshops followed in the school by local sessions coordinated by staff members and supported by central school board funding. Other development activities involving the staff as a whole have included local professional activity day sessions on behaviour management, and school-wide implementation of manipulative math. The former activities emerged as a result of staff preferences, the latter was mostly attributable to the administration pushing a central school board thrust.

More frequently, staff pursue their own individual interests by partaking in central inservice programs, additional qualification courses and other development opportunities.

Instruction. A considerable amount of sharing of materials occurs in the school although most instruction is carried out individually by staff. Much of the sharing that goes on is in support of teachers new to the school, especially those new to teaching. Staff are very open and willing to share resources.

The Partners-in-Action program was implemented by the previous teacher-librarian and subsequently continued by the current librarian. This has involved all staff in cooperatively planning and implementing units with the librarian and sometimes with other teachers. For the most part, teachers collaborate on planning, divide up the labour, and assume responsibility for learning centres or components of the unit. On occasion, some teachers have rotated through different centres with the students. In some cases, such "partnering" activities have occurred in the school independently of the teacher-librarian. However, such instances are relatively infrequent as most teachers operate at the level of sharing materials and implementing program individually or by involving volunteers or teachers aides.

The intermediate division teachers are not quite as involved with collaborative instructional activities as are their primary and junior division colleagues. This is mostly attributable to the demand to cover subject content in the intermediate grades and the existence of the rotary schedule system. They do, however, participate with enthusiasm in the "reading buddies" program with classes from the other divisions.

Summary comment. Douglas Elementary School is a school on the rise. With a relatively young and energetic staff and consistent leadership it will potentially develop into an extraordinarily successful school.

Carnegie Elementary School

Organization. Carnegie Elementary School is a K-6 school with about 550 students and more than 30 administrative and teaching staff. Primary and junior programs are offered at Carnegie in addition to special education programs including gifted classes in the junior division. The building is about 35 years old and is in good repair. There are no portable classrooms on site as enrolment has been on a gradual decline in the school for some number of years. At Carnegie, the gifted program is offered in the junior division. This program has had a positive impact on the school in terms of additional resources, teaching ideas, and setting the academic tone. Some problems have emerged, mostly due to a sense of competition that has developed but, generally, staff are sensitive to the issue.

The physical structure of the building is conducive to the effective organization of classes. Classes are roughly organized by division and in some cases classes within grades are located adjacent to one another. For some teachers, the staffroom is relatively inaccessible for breaks because of its non-central location.

Community. The school is located in an urban community within a generally homogeneous, predominantly caucasian, middle class neighbourhood. Recently, subsidised housing projects and trends of broken homes and single parent families have had modest effects on the make-up of the school. However, there are many parent volunteers in the school and the community is generally concerned about educational issues and supportive of school functions.

Staff. Carnegie Elementary has undergone fairly modest changes in staffing over the past several years. All staff categories have been affected and replacements have been mostly experienced teachers from other schools, although some teachers have come to Carnegie straight out of teachers college. The reasons for staff turnover are varied and range from promotion to positions of added responsibility, to need for a change of venue, to retirements. The administration has been very active in recruiting good calibre teachers to fill the vacancies, but this job has been made easier by virtue of Carnegie's reputation around the board; the school and its neighbourhood are known to many as a desirable place to work and generally lots of teachers apply when vacancies become available.

The staff at Carnegie is extraordinarily open, warm and willing to share. This is particularly evident among those helping newcomers acclimatize to the school. Professional and support staff tend to go out of their way to make newcomers feel welcome, especially teachers in their first year of teaching. For the latter group, informal mentoring arrangements have naturally occurred. Although the staff do not socialize much outside of the school, they do hold in high esteem opportunities to be with one another on special occasions and planned social events. There are no cliques at Carnegie and although groups of staff tend to lunch together, they do so not to the exclusion of others.

There is a sense of pride and loyalty in the school. There is also a sense of mission and purpose. This is largely due to systematic efforts by the adminstration to develop collaboratively with staff a school mission statement and more importantly, to apply it in the form of criteria upon which curriculum and staff development decisions. Most staff are very satisfied to work at Carnegie. They have a sense of ownership in the activities in which they are involved and they enjoy working together on projects.

Administration. The principal at Carnegie Meadows arrived on the scene about three years ago and in his short stay has accomplished much. His focus has been one of improving curriculum and instruction through collaborative staff decision making. With staff the school mission statement was developed and a staff management committee put in place. These activities fed directly into staff development activities with a focus on mathematics problem solving, among other initiatives. The principal's role has been a facilitative one; he remains open and supportive, yet provides the impetus for staff to demonstrate leadership and participatory decision making themselves about how to accomplish goals. He wants teachers to be continually re-thinking their programs.

The principal has very strong beliefs that curriculum issues are central to the operation of a successful school and views many of the non-instructional issues and problems with which staff are confronted as peripheral, distracting and sometimes annoying. As a consequence, he often assumes a role as "gatekeeper" and attempts to buffer staff from perceived distracters that may come from the board. To that end, central board office consultants rarely arrive uninvited at Carnegie. When they do come to the school it is usually for a specific purpose related to a current school thrust.

The adminstration at Carnegie Elementary has undergone some changes this year with the arrival of a new vice-principal. Similar to his predecessor, the vice-principal works in concert with the principal to maintain the administrative thrusts described above.

Professional development. The staff are involved in a wide variety of professional development activities, some of them on an individual basis, some done as a staff or as a division. Individual initiatives include attending personally appealing central board inservice sessions, additional qualification courses and graduate programs. But the staff are also very much involved in presenting workshops at the school for staff from other schools. Frequently, these are held after school and, on occasion, on system level professional activity days.

Many local initiatives involve several staff. Staff enjoy working together implementing projects. The math problem solving thrust is a case in point. Through the staff management committee, of which the principal is a member, math problem solving was a staff development initiative that was thought to fit the school mission, be consistent with board organizational goals and be sufficiently interesting for staff. The project began within the junior division and with support from administration, external consultants were brought in and a pretest-implementation-posttest design was launched using CTBS as the measure of student achievement. This year the staff have decided to develop grade level criterion-referenced tests, and the program has expanded into the primary division. This is likely to be the final year that staff will focus on

math problem solving in such a direct way. Soon it will be time to move on to other challenges, but the problem solving will continue as part of ongoing programming.

Another form of professional development occurs at more of an individual level and is linked to the board's teacher evaluation policy. In carrying out the policy, administration has adopted the stance that this standard operation procedure ought to be used as a professional growth opportunity. The principal or vice-principal, then, encourage staff to work on areas in which they are both interested and stand to learn something. Staff take comfort in knowing that they have some latitude for trial and error and that mistakes will not lead to consequences for the evaluation process or records.

Instruction. Sharing instructional materials with colleagues is common at Carnegie. In addition, many teachers exchange ideas on informal occasions (hallway, breaks, etc.). Although these ideas and materials are introduced into individual programs by the teachers, a significant proportion of the staff engage in what might be viewed as deeper levels of collaborative work. Such work, sometimes connected with the partners-in-action program, often takes the form of cooperative planning of units, the division of labour, and individual responsibility for setting up and implementing learning centres. Debriefing sessions generally are held after the unit has been implemented and some discussion of student evaluation might take place. A few of the staff engage in shared units where they actually teach together with combined classes or rotate with the children through all of the learning centres. These activities help to reduce individual workloads, foster the brainstorming of new ideas from different perspectives and help teachers to develop their own knowledge and skills.

The Partners-in-Action program is very congruent with such initiatives. The program was implemented by the previous two librarians and is strongly supported by the current librarian who began this year.

Summary comments. Carnegie Meadows is indeed a school on a mission. The staff have a clear sense of what they are trying to achieve and are well on their way to doing so. The school is a very successful one; one where teachers would be proud to have their own children educated (a particularly stringent criterion). People enjoy working at Carnegie and with the current good mix of staff and continued strong leadership Carnegie is likely to enjoy success for many years to come.

Peterson Elementary School

Organization. Peterson is a K-8 school with about 525 students and more than 30 administrative and teaching staff. Primary, junior and intermediate programs are offered at Peterson in addition to special education programs including gifted classes in grades 6, 7 and 8. The building is fairly old and has been expanded on more than one occasion. Currently, there are a number of portable classrooms on site. The physical structure of the building poses some minor organizational problems. For example, the junior division classes are grouped together on the top floor, which is useful, but the newly constructed staff room is virtually inaccessible to them at recess. Other divisions are not currently grouped together in terms of their physical location. The library at Peterson is quite large and well equipped.

Community. The school is located in an urban community with an interesting mix of people. Very close to the school is an old, established neighbourhood which might be considered to be somewhat of a "high-rent district." Many local professionals reside in this neighbourhood. Also close by are other less economically well off, yet middle class neighbourhoods with a mix of people from different ethnic backgrounds. Several children from this part of the community come from broken or single parent homes. The school has many parent volunteers, predominantly from the high rent district where family income is sufficient to release one parent from the

responsibilities of full time employment. The parents are fairly active in school affairs and willing to help out where needed.

Staff. Peterson Elementary has undergone fairly significant changes in staffing in the past few years. The entire junior division has been replaced with a mixture of mostly experienced teachers and a recent graduate from teachers college. New staff have joined the other divisions as well. The reasons for staff turnover are varied and range from promotion to positions of added responsibility, to need for a change of venue, to retirements. A sense of "team" has developed at Peterson over the past few years and there have been cases where teachers have left because they were less than satisfied with such an arrangement.

The staff at Peterson are extraordinarily open, warm and willing to share. This is particularly evident among those helping newcomers acclimatize to the school. Professional and support staff tend to go out of their way to make newcomers feel welcome, especially teachers in their first year of teaching. For the latter group, informal mentoring arrangements have naturally occurred. Although the staff do not socialize outside of the school overly frequently, they do hold in high esteem opportunities to be with one another on special occasions and planned social events. Although staff on the top floor are unable to intermingle with others at recess they make a point of taking breaks with one another in the academic resource area on that floor. They are occasionally joined by other staff.

There is a sense of pride and loyalty in the school. Most staff are very satisfied to work at Peterson. Even despite the relatively high staff turnover of staff, the administration and staff have been able to work together to ensure that replacement staff fit in at the school.

Administration. The adminstration at Peterson has undergone some significant changes this year with the departure of the vice-principal who accepted a promotion. The vice-principal and principal arrived at Peterson at the same time three years ago. These are very different individuals but they were able to complement one another. The principal arrived at the school with many years of administrative experience and a wealth of expertise in running schools and dealing with the central board office bureaucracy. The vice-principal, on the other hand, was relatively inexperienced with such matters but was eager to learn, enthusiastic and well trained in the instructional leadership dimensions of the role. The administrators sorted out their respective roles accordingly and learned a great deal from one another.

The result was strong leadership, supportive of teacher's decisions, and yet attentive to the school board's organizational goals. The departure of the vice principal does not go unnoticed in the school, but his replacement with an acting vice-principal appointed from the Peterson staff, the principal's unwavering commitment, and the continuation of the staff advisory council instituted by the administration are likely to make up for what is viewed by many as a loss to the school.

Professional development. The staff are involved in a wide variety of professional development activities, some of them on an individual basis, some done as a staff or as a division. Many of the professional development activities are supported and valued by the school board. Individual initiatives include selections of personally appealing central board inservice sessions, additional qualification courses and graduate programs.

The local staff advisory council is directly involved in coordinating many of the staff development activities. Through the council, cooperative learning was identified as a major area for professional development focus. Supported by board resources, many teachers have participated in co-op institutes and have shared what they have learned with staff. The administration also participated in the board level inservice programs on co-op and have provided support and encouragement for local implementation. The principal has even been directly

involved in applying the instructional technique. Having been exposed to the approach and given opportunities to try it out, some staff are now interested in moving on to other things. In particular, the junior division staff have opted, through preferences expressed in advisory council initiated surveys, to develop some of their own professional development programs.

This year the principal was instrumental in initiating an English professional development focus in the intermediate division. He encouraged the division to work collaboratively on this project and provided them with the opportunities and resources to do so. The project appears to be a success as a multi-dimensional unit and considerable a instructional materials have been developed.

Instruction. Sharing instructional materials with colleagues is common at Peterson. In addition, many teachers exchange ideas on informal occasions (hallway, breaks, etc.). Often these ideas and materials are introduced into individual programs by the teachers. However, a significant proportion of the staff engage in what might be viewed as deeper levels of collaborative work. Such work, sometimes connected with the partners-in-action program, often takes the form of cooperative planning of units, the division of labour, and individual responsibility for setting up and implementing learning centres. Debriefing sessions generally are held after the unit has been implemented and some discussion of student evaluation might take place. A few of the staff engage in shared units where they rotate with the children through all of the learning centres. These activities help to reduce individual workloads, foster the brainstorming of new ideas from different perspectives, and less frequently, help teachers to develop their own knowledge and skills.

Some of the shared instructional activities in the school are supported by the partners-in-action program. The teacher-librarian has been implementing the program at Peterson since her arrival some three years ago. The response to Partners-in-Action has been mixed. It is offered to teachers to use at their own discretion. While some teachers take full advantage of the opportunity and engage in very collaborative instructional activities, others use the program as an opportunity for their classes to develop library and research skills. Others are not inclined to use the program very much at all. In particular, teachers in the gifted program are more inclined to make use of external resources (public libraries) because of the demands of their programs.

Summary comments. Peterson Elementary School is a school "carrying the ball." The school is a successful one where people enjoy working and work together as a team. With a current good mix of staff and continued strong leadership Peterson is likely to enjoy continued success for many years to come.

CROSS-CASE RESULTS AND DISCUSSION

As described under our sample plan, each of the four schools selected were in the 90th percentile on student growth in our previous thinking skills project. Initially, we believed two schools to have collaborative cultures and two not to have based upon a profile score developed as part of that project (Appendix A). When data collection commenced Douglas Elementary was found not to be particularly successful; high student growth scores from the previous project were attributable to grade 5 staff who had subsequently transferred. To maintain the integrity of the project as a study of exemplary elementary schools, Douglas Elementary was dropped from the cross-case analyses. Another school, Bradgate Elementary, had relatively high norms of collaboration although its profile score predicted otherwise. We discovered that a now-retired teacher-librarian contributed to the relatively independent implementation of the thinking skills curriculum. This, in essence, was an atypical response to change for this school. Our sample of three schools, then, each had relatively high norms of collaboration and could be described as exemplary.

In order to fully understand and appreciate the consequences of teachers' joint work it is necessary to elucidate the sorts of collaboration that were taking place. Just as we found our focus upon implementation process issues to be a sensible way into the dynamics of knowledge use during interviews, we believe this to be the logical starting point for reporting cross-case results. Having illuminated the sorts of joint work occurring in these successful schools, we then move to our central focus, that of clarifying, from the perspective of implementors, the consequences of teachers' joint work.

The Nature of Joint Work

We found Little's (1982) framework somewhat limiting for the sorts of joint work we observed but indeed encountered considerable evidence of talk, teaching colleagues, joint planning and observing. Patterns emerging in the data suggested that joint work might best be conceptualized as a continuum reflecting depth of collaboration. At one end of the continuum were information exchanges which were one or two way exchanges of information about curriculum in which there was generally no attempt to reach consensus on what constitutes best practice. Examples were discussions in the halls, sharing materials and ideas and disseminating knowledge informally and at staff meetings. At a slightly deeper level were joint planning and participatory activities defined as mutual exchanges of information leading to agreement that particular principles will be implemented at the discretion of individual staff members. Divisional planning meetings, advisory councils, instructional unit design meetings, coursework and joint materials production activities were examples of joint planning and participation. The next level on the continuum was concurrent implementation, or agreement on specific curriculum actions to be implemented by teachers. This category often took the form of common implementation involving a division of labor. It might, however, involve teacher coverage to the extent that feedback regarding student performance was shared. Finally, at the deepest level, were integrated activities we called joint implementation. In these activities teachers actually delivered instruction jointly or in the presence of one another. In some cases, this was restricted to observation, but in many it transcended observation into mutual responsibility for implementation and feedback, sometimes called team teaching.

Although this revised framework worked well for us, it was not entirely adequate. Some activities could not be neatly categorized. Three examples help to illustrate this. First, disseminating information for conferences or workshops sometimes led to keen interest on behalf of staff who subsequently engaged in planning and implementation. Second, teachers may have been engaged in individual, yet concurrent, delivery of instruction but shared responsibility for and exchanged information about student assessment. Finally, aid to newcomers came in all forms and levels. We observed aid in the form of simple sharing of ideas and resources right through to direct observation and feedback in a mentoring relationship. The salience of features being described (as determined by the voice of those doing the describing) was our most reliable guide to categorizing the nature of joint work. The propensity for teachers' collaborative work to defy categorization, we think, is testimony to the complexity and fluidity of life in schools.

One final point needs to be made by way of prefacing our results. Our design necessarily carried with it a caveat noted by Huberman (1990). Our focus on successful schools provided the terms of reference from which respondents' views emerged and as such introduced an inherent bias in responding. Moreover, our choice to zero in on teachers' joint work, albeit more evident in these schools than in the main, may leave readers with a distorted impression about teachers' work in these schools. We acknowledge at the outset that much of the work that could be observed in these schools conformed to individual and private orientations to pedagogy. Being true to our interest meant discarding much of the reference to such work, and should not be taken as an indication that it was not prevalent in these settings. Our data concur with Nias et als' (1989) contention that respect for individuality and tolerance for individualism is a salient feature of collaborative cultures. We now turn to the elucidation of teachers' joint work.

Information exchange. If we were to construct a frequency distribution using our depth of collaboration continuum as the *x* axis, the data would be negatively skewed, to be sure. In all three schools, by far, the most common form of teachers' joint work, if, in fact, it can be suitably called that, was sharing of materials, ideas, information about upcoming events, and information from recent events. Similar observations were made by Zahorik (1987) and Huberman (1990). Sharing appeared to be relatively independent of teachers' experience and years of service within the school.

> *There were [school system] workshops. There is lots of sharing and people get excited about new ideas. If you are new on staff you don't have to make a unit; somebody will always come to your door with it. When [Teacher X] started teaching, [Teacher Y] gave her a lot of units, which she could use as she wanted. (Teacher, Bradgate)*
> *The collaboration extends beyond specific events to include day-to-day. For example, [teachers] will borrow lesson plans or materials if you are really dead and don't have a daybook or anything that day. (Teacher, Peterson).*

This sort of sharing generally took place spontaneously and in relatively informal settings (e.g., hallways, staffroom, etc.). It was by no means limited to pedagogical matters (Little, 1982; Nias et al., 1989) although significant portions of conversations concerned educational issues. In some cases, formal occasions were appropriate for sharing. As the Carnegie teacher-librarian put it,

> *Staff meetings are the key way for ideas to spread; also, informal conversations. If it is visible--for example, an art display--people see it and can ask questions. Loony ideas are not really screened but most people float things by [the principal]. I don't imagine him saying no unless it was a safety problem.*

In many cases information gathered from workshops or conferences was introduced to peers informally. At Bradgate there was an expectation that this would occur and a formal slot was reserved on the staff meeting agenda for this purpose.

> *Just talking about [an innovation] could lead to somebody trying it out in another class. This does happen. Much of this is informal but at staff meetings people present on the conferences they attend. [The principal] encourages this, and there is also kind of an accountability component here if funding was provided. (Teacher, Bradgate)*

Sometimes the dissemination of ideas took the form of conducting workshops on-site during professional activity days or at other times (Little, 1982). For some teachers, such sessions moved from the level of mere information exchange to more serious and conscious joint planning.

Joint planning and participation. Although there was notable variation over schools, the extent to which staff engaged in joint planning and other forms of participation was relatively significant in all of them, corroborating other data (e.g., Little, 1982; Nias, et al., 1989). Committee work (e.g., evacuation plan, behavior code), divisional meetings, grade level meetings, school advisory councils and school growth teams were examples of formal cooperative planning structures. These school-wide participatory bodies dealt mostly with technical, as opposed to managerial, matters (Duke & Gansneder, 1990) although some participation in the latter was evident. At Carnegie, for example, the principal encouraged staff to embrace leadership development opportunities within the school and these were not necessarily restricted to issues of teaching and learning. At each of the three schools, staff had recently completed school mission statements involving all school staff.

Aside from regular forums for ongoing dialogue, discussion and decision making, project meetings were quite common. Sometimes these involved selected staff for specific projects, in

other cases the entire staff met as division or grade level subgroups working on the same theme. A major school improvement focus at Carnegie centred on mathematics problem solving. This program, which was directly linked to the school's mission statement, involved grade and division level meetings and decision making.

> *The math problem solving program involved a lot of meetings but odds are my program would not have been as good. You have to weigh it up; one or two meetings is definitely worth it to have a good program. (Teacher, Carnegie).*

Joint planning also occurred within the context of "Partners in Action," a district supported program designed to involve in an integrated way teachers working with the teacher-librarian. At Bradgate and Carnegie the Partners program was more well developed and, as intended, extended into deeper levels of joint work (reported below). At Peterson, however, the Partners program was much less pervasive and somewhat more restricted to the planning phase. Only a limited number of teachers were involved and in some cases participation by the librarian was limited to the search for resources and training students in research skills. There were at Peterson, however, groups of teachers who worked together in less formal partnering arrangements.

> *We plan every activity centre together from start to finish. We may divide up when you produce worksheets or something, but we plan the entire unit together. (Teacher)*

Finally, we considered teachers jointly attending workshops and courses as instances of joint planning. Such activities were particularly strong at Bradgate as opposed to the other two schools.

Concurrent implementation. This level of teachers' joint work took two discernable forms and usually involved the division of labor. Teacher-teacher interaction of this sort generally involved only pockets of staff and occurred with a modest degree of frequency. First, teachers took responsibility for delivering specific instruction. For example,

> *Last year [Teacher X] switched with a "gifted" teacher. She did art and the other teacher did weather. This type of thing happened just between the two of them and it happens fairly frequently in this school. It was initiated accidentally but then they pursued it. (Teacher, Carnegie).*

> *Teachers sometimes work with others, split classes or a similar arrangement. [Teacher X] and [Teacher Y] both have a grade 4 and one might take both classes. Also the grade 6 teachers will do that. One might teach health and the other will go and do some planning. They will flip flop later on. (Teacher-librarian, Bradgate).*

These examples are probably more directly linked to the coverage of ongoing program rather than the implementation of specific innovations or curriculum priorities. However, they generally involved significant exchange about student performance that was insightful for teachers. A second type of concurrent implementation was evident where joint planning preceded individual delivery. Often, collaboration at the point of implementation took the form of communication and feedback from monitoring the implementation. The following fieldnote illustrates this pattern.

> *They tend to run things at the same time even though [Teacher X] has a grade 5 class and [Teacher Y] has a grade 4. She'll say "You'd better get started on the scenery soon because my kids took a lot longer than we thought with something else." This was done as a recap during a professional activity day where they had an extra hour. Communication is expected to be similar during the light and colour unit so that there is no overlap. (Fieldnote, Peterson)*

Many teachers concurrently implemented jointly planned units as part of the Partners program. It was not uncommon to find one or two teachers and the librarian each setting up activity centres within their rooms and then having the students travel from room to room as they worked their way through the centres. Often, planning involved the division of labor for constructing the centres and teachers would facilitate within their own space as the students worked. Usually, information about student performance was subsequently shared. One principal cautioned, however, that not all teachers were eager to embrace this mode of implementation.

> *Teachers approach Partners from a conservative standpoint. They are reluctant to give up things such as partial planning and partial evaluation of the unit. That's always been their domain. For that reason, these things will take time. (Principal, Bradgate).*

At Carnegie, concurrent implementation of the problem solving program occurred in response to joint planning and materials development. Grade level peers jointly developed suitable tests of problem solving skills and concurrently implemented them within their individual classrooms at pre and post intervention intervals. The student growth data were subsequently analyzed and results shared among the teachers.

Joint implementation. This, the deepest level of teachers' joint work, was found relatively sparingly and usually among only pockets of teachers within the schools. There were a few variations but none were observed to be very common. First, there was straight observation of a colleague in action.

> *[Teacher X] dropped by and said "Hey, I'm doing something on co-op learning today, why don't you pop in and see what happens?" So I did, and it was great! (Teacher, Bradgate)*

The principal at Peterson participated by persuading a veteran teacher to let him try out a cooperative group lesson. He had been involved in workshops that many of the staff had attended and wanted to demonstrate for a novice teacher. But first he wanted to do a trial run with a teacher he trusted to provide honest feedback. In another example of integrated collaboration, teachers planned a unit as part of a Partners program. They were each given responsibility to construct activity centres in their own rooms but then they moved about centres and rooms with multi-class groups of students.

> *We had to sit down and decide what would be happening in each case so that, for example, I didn't have a mindset for these three centres and could not go into the other classrooms and feel comfortable. Basically the teacher is the facilitator. You have to be familiar with the centres in the other rooms before the children come in. (Teacher, Bradgate).*

Finally, there was the rare occurrence of teachers actually team teaching from a delivery standpoint.

> *We actually put our classes together. Our input lessons we do together. [Teacher X] will take a turn and I will. Both of us are doing exactly the same thing. (Teacher, Carnegie)*

It is important to recognize that these instances were relatively rare and isolated. We occasionally heard reports about peer coaching activities but usually it was in reference to someone else and details were vague. Nias and her colleagues (1989) suggested that team teaching is less rather than more likely to occur in "collaborative cultures" where staff view themselves as individually different yet mutually dependent. In schools where such cultures do not exist "like minded colleagues have an incentive to create their own subculture. When this is based upon shared pedagogical or epistemological beliefs and the physical setting is propitious, teachers may choose to team teach" (pp. 52-53). The frequency with which we observed joint implementation is

consistent with this view, although we are unable to comment on the likelihood of this sort of teacher-teacher interaction in less than collaborative school cultures.

In sum, we found a wide range of teachers' joint work and were convinced that the schools in our sample truly were inclined toward collaborative work. As we examined our data from the standpoint of the depth of collaboration hierarchy we confirmed that considerable activity was occurring at the level of information exchange and much less of the deeper, more penetrating forms of collaboration were apparent. We now turn to the central issue for the paper. What were the consequences of teacher-teacher interaction and did they depend upon depth of collaboration?

The Consequences of Working Together

Our data conformed fairly nicely to our conceptual perspective on knowledge use. We found ample evidence that would suggest that both instrumental and conceptual benefits accrued as a result of teachers' joint work. We also observed some impact upon teachers' feelings and motives. Not all of the outcomes were positive but the vast majority fell into that category. We mention the negative consequences as well. Finally, there were some suggestions from our respondents that students benefited from teachers' joint work and these are also reported.

Instrumental uses. Although a fairly wide variety of instrumental consequences of teachers' joint work were observed, respondents from all schools reported that two were prominent. First, attributable mostly to the division of labor on planning and curriculum delivery, there were notable savings in time for teachers. Some teachers suggested that preparation time had been significantly reduced when joint planning activities occurred.

> *Preparation time is obviously cut right in half and the ideas that are generated are certainly better than the ideas of one. (Teacher, Bradgate)*

> *The main benefit of collaboration is shared workload. (Teacher, Peterson).*

Most references to reduced workload were connected to joint planning but some were linked to deeper levels of shared work. One teacher reflected upon the positive consequences of working collaboratively with the teacher-librarian in delivering a unit designed to enhance childrens' thinking skills.

> *[Teacher X] and the librarian took turns doing lessons, teaching the whole class and then dividing them into groups to do their work. (Fieldnote, Carnegie)*

> *While [Teacher X] was teaching [Teacher Y] was listening and that made it a little easier on each of us. (Teacher, Carnegie)*

In this instance, teachers may have been able to support one another in developing information schemata (Leinhardt & Greeno, 1986): information stored during instructional activities in order to be used at a subsequent point in time. An equally plausible interpretation, however, was that this approach helped relieve job related stress. In other words, it gave teachers a chance for a breather. Not all teachers, however, agreed about the savings in time or reduction in workload. Several reported that collaborative planning required extra time and that often the onus was on teachers to find it (e.g., lunch, recess, after school, etc.). However, for many, this was less of a constraint than an obstacle to be solved.

> *What teachers get out of integrative collaboration is new ideas and materials; stuff you didn't see in the library. Also, you get feedback. Someone else might see problems right away. It's definitely more work to collaborate but it's worthwhile. (Teacher, Bradgate)*

We found some evidence to suggest that time saving may have been contingent upon other factors.

> *She has not seen much time savings through division of labour this year but there have been some benefits in terms of running things off for each other. The problem is that their classes are so different this year that they are setting up their own centres in each class even though they do all the planning together. (Fieldnote, Bradgate)*

A second major instrumental consequence concerned the equitable distribution, and in some cases, centralization of resources. At Peterson staff set up a central supply area for information, materials and activities. For at least one teacher it

> *. . .makes it more meaningful and less frustrating. There's too much time and energy expended otherwise. (Teacher, Peterson)*

At Carnegie, it was suggested that the principal was more likely to support the acquisition of new materials with a limited budget if he was assured they were to be used jointly. Teachers at this school and Bradgate also indicated that joint planning sometimes supported the prioritizing of materials on the "wish list." These data are consistent with Barth's (1989) observations.

Several other forms of instrumental consequences of joint work were recorded. At Peterson many staff observed that consensus decisions about school plans for the subsequent year and staff development activities resulted from the advisory council's systematic survey practices. At Carnegie participation by staff in the school-wide math problem solving project led to the local development and standardization of student performance measures and a system for reporting student growth to grade and division staff groups. The formation of new committees, decisions to adopt innovations, or to abandon them, and modifications in existing school policy were other examples of the instrumental use of collectively constructed knowledge.

Many of the instrumental uses that we observed were both somewhat extrinsic and directly connected to joint planning and participation activities. While the latter observation is not really surprising given that most of our data about the nature of collaboration pertained to the information exchange and joint planning levels of our teacher-teacher interaction hierarchy, it is interesting that instrumental benefits did not appear to be linked in any readily discernible way to deeper levels of collaborative effort. This was not necessarily the case for consequences that fell into the domain of conceptual use.

Conceptual uses. Our data spoke with their strongest voice about the conceptual consequences of teachers' joint work. A range of such outcomes emerged within each of the three schools. These uses of knowledge from joint work fell into five general categories: generation of ideas and insights, enhancement of communication, growth in practice, goal clarification and consistency, and knowledge of students. We elucidate each of these in turn.

The first type of use, generation of ideas, was by far the most frequently mentioned and was usually, although not always, forthcoming from discussions about sharing materials and cooperative planning. The following illustrative quotations expose the essence of this outcome.

> *It's good to have dialogue because you can think about what is suitable and what needs to change. Sometimes you can decrease the pressure a little bit, especially when you are developing a new unit. It's really hard to make every [activity] centre wonderful and inspiring. (Teacher, Bradgate).*

> *Two heads are better than one, and four heads are better than two. As long as they're there you get everybody's expertise involved and you have to end up being in a better position. Thinking*

about a problem by yourself can get you deeper and deeper but together a fairly simple solution can evolve. (Teacher, Carnegie).

While the former example shows the direct benefit in terms of developing materials and putting ideas to use the latter one speaks to the construction of a shared theory of practice (Little, 1990) and the development of shared meaning (Nias et al., 1989). This theme is echoed in the following.

Collaboration creates a better program. If you have to create 7-8 [activity] centres on your own you are going to be pressed for time and resources but if you divide up the task it is a lot easier. It brings in more ideas, a wider range of tasks (Teacher Bradgate): i.e., increases teachers' ability to program for kids outside the normal range. (Fieldnote, Bradgate).

Benefits? It gets me out of one mind set and opens up somebody else's mind and all the possibilities they can put forth; things I just couldn't see or couldn't think about or was too tired to recognize. I really liked that. Ten ideas on one topic are a lot better than two. (Teacher, Peterson)

The latter teacher went on to caution that collaboration is not without limits.

But sometimes I like to be left to do my own thing, you know. Sometimes I'm so tired of collaborating and cooperating and sharing and partnering that I like to be miserly and niggardly and say okay just let me do it the old way, my way.

There are two significant points to be made here. First, the importance to teachers of retaining sufficient autonomy and discretion in their classroom decision making is underscored. Teacher-teacher interaction may tend to jeopardize that discretion to the extent that teachers feel the need to guard and protect it (Hargreaves, 1990; Huberman, 1990; Lytle & Fecho, 1989). Second, interpersonal dynamics and the necessity for cooperation and consensus can serve to erode mental energy that teachers may wish to preserve for application within the classroom.

A second category of conceptual knowledge use is linked to the first. Communication was enhanced through teachers' discussions and propensity to share. One manifestation of this is evident in teachers' heightened awareness of resource access and availability. In response to a probe about consequences, one teacher at Peterson replied,

Oh, stimulation to try new things. It's much easier to become aware of new things if different people find out and let you know.

Another suggested,

Teachers pull together and work together. You are not all alone doing these things, you get feedback and encouragement. You go to one anther for advice and have grade and divisional meetings where planning and sharing occur. It helps you to carry it out in your own classroom. And sometimes there is a review of the evaluation so you can think about the planning. There is follow through. (Teacher, Carnegie)

Two things are noteworthy here. First, communication among teachers is not only enhanced but may become enlightening, motivational and stimulating. As found by Nias et al. (1989), it appeared to us that the enhancement of communication networks stimulated the development of shared meaning. Second, enhanced communication implies that barriers preventing teachers from actively seeking and/or giving advice may erode as more and more benefits are experienced. As we noted, such barriers are endemic to the persistency of privacy (Feiman-Nemser & Floden, 1986; Huberman, 1990; Little, 1990).

A third category describes improvement in professional practice or teacher efficacy (Ashton & Webb, 1986; Stein & Wang, 1988). Some teachers in collaborative environments seek out ideas with reform of their personal practice in mind. This is made explicit in the following fieldnote from Peterson.

> *A key factor [in successful collaboration] is the fit of teaching styles. But [Teacher X] also says he could learn a great deal from a traditional teacher, even if he is not collaborating with him. This learning would occur during planning sessions; the ideas, objectives and materials could be shared even if the approaches were different.... [Teacher X] is constantly looking for new stuff; he does not want to reinvent the wheel. He can learn a lot about classroom management from a traditional teacher. "It helps consolidate my philosophy of education too."*

The consolidation likely occurred by picking up new ideas rather than through the teacher articulating his philosophy. Although evidence of changed practice is not apparent here the intention to change clearly is. A similar view on the link to practice was offered by a Peterson colleague.

> *You might think something is great until you start talking about it and you realize it wouldn't have been that great. Brainstorming, idea generation, learning from one another different ways to teach things . . .*

This sort of consequence, which speaks to the importance of obtaining feedback from peers, was more penetrating when deeper levels of joint work were tackled. Ongoing dialogue and communication about implementation fostered the reinforcement of change (Authors, 1992; Louis & Dentler, 1988).

> *When you collaborate and things change and you see the positive results you can't help but say to yourself "I guess we did right!" (Teacher, Bradgate)*

A fourth type of conceptual consequence is perhaps more an instance of organizational learning (Argyris & Schon, 1979; Louis & Semsyk, 1991) than individual. Many of the school committees and decision-making bodies contributed to the development of shared vision or cohesiveness in goals (Newmann et al., 1989). A principal described the process,

> *There was an initial sense by staff that there were bits and pieces and no comprehensive behavior. This led to the committee process and the involvement of all kinds of folks in a systematic way so it will be sensitive to school needs. Bringing folks together helps to develop a sense of coherence among staff and the principal's use of committees and treatment of teachers as professionals is all part of the process. (Fieldnote, Carnegie)*

Similar consequences were apparent at Bradgate but the process was quite different.

> *What basically happens is that a teacher, or a group of teachers decide that "Hey, this is really lacking in our school" or "This really needs to become a focus" and they sort of take it on as a personal project. That's how a certain focus occurs. (Teacher)*

While teachers work together jointly to clarify goals and develop consistency in them, the latter approach is much less formal and perhaps more naturalistic. However, the needs assessment focus for the advisory council at Peterson had much the same effect as indicated by several respondents.

The fifth and final category of conceptual development is perhaps among the most intrinsically meaningful to staff and was almost exclusively the consequence of deeper levels of joint work. Teachers were able to develop a more accurate and rounded picture of individual students in their class through their work with colleagues. It was acknowledged that children

behave differently when in the presence of different adults such as often occurred during concurrent implementation. The following remarks bring this to life.

> *Also, as far as evaluation goes it's very helpful to see a child through someone else's eyes. Often [teachers] agree on evaluation but discrepancies arise and that is really good and a real eye opener. You learn about how other teachers do things like you learn about how another teacher actually will administer [activity] centres, not just ideas for the unit. You get lots of different input on both of those things. (Teacher, Carnegie)*

> *Sometimes the other teacher might be able to pinpoint a problem with one of your kids. They may discover that one of your kids can do something well and you had never seen it or they may be the same little pain in their classroom as in yours and you say "Thank you, I needed that!" (Teacher, Peterson)*

> *Teachers may not have enough time to observe kids properly because of other expectations. Collaborative opportunities can really help them to observe. If you talk to someone about one of your kids, sometimes you will consciously look for something and then see it. "Hey [Teacher X] was right, Norm is really good at such and such!" (Teacher, Bradgate)*

Such knowledge is likely to become part of the teacher's information schemata (Leinhart & Greeno, 1986) to be stored and used subsequently. It is also likely to foster the development of a theory of practice (Little, 1990; Nias et al., 1989), particularly when teachers reflect upon what aspects of their own practice might be modified to stimulate specific student behaviors.

Affective consequences. Several consequences identified by our respondents could not be adequately captured by a conventional knowledge utilization framework. These fell into the affective domain and touched on teachers' motives, attitudes and feelings. Greene (1988) suggested that such consequences ought to be considered as an integral part of the utilization construct. Teachers expressed a variety of such outcomes. Along with the generation of new ideas came a degree of excitement and professional stimulation for some. For many, joint work added an element of fun to their day and prevented the onset of monotony and boredom. For others, there was a sense of recognition and esteem that could be attributed to acknowledgement by their peers for a worthwhile contribution.

> *So then people present a little clip at the staff meeting. What we do is we acknowledge the person... makes you feel that what you did wasn't just for yourself, it's important for all of us. (Teacher, Bradgate)*

> *It's the gratification of doing something with another teacher and knowing it was good for the children. (Teacher, Peterson)*

The second remark highlights the intrinsic reward inherent in the ethic of care (Feiman-Nemser, 1986). Under the wrong conditions, it has been argued (Hargreaves, 1990), collaborative work can erode such rewards from teachers who believe their program is suffering due to their involvement in activities away from the class. We had no evidence to support this conjecture. Gratification was also experienced in response to praise from parents who were privy to the nature of the joint activities.

An enhanced sense of belonging or community (Newmann et al., 1989) was another commonly shared view. Teachers developed through their collaborative activities a sense of unity and cohesion that extended beyond the mere clarification of goals, nor did it necessarily have to do with non-academic social relations.

Camaraderie among staff is a key factor; they are mutually supportive. You never feel alone in any kind of a venture. (Teacher, Peterson)

The benefits to me are a sense of belonging I suppose and a support system.... I just want to belong and I want to be comfortable and I want to share the difficulties and have others give me some advice. (Teacher, Peterson)

Again the data suggest the sacred norms of non-interference (Feiman-Nemser, 1986; Huberman, 1990; Rosenholtz, 1989b) so characteristic of many school cultures, appear to have given way to a more pervasive norm of help seeking and help giving, engagement with the social unit (Louis & Smith, 1991), and organizational commitment (Kushman, 1992; Rosenholtz, 1989a; 1989b).

Finally, joint work led to the development of confidence with new innovations for many. Initial awkward feelings were discussed openly and recognized as being shared. A Carnegie teacher put it aptly,

Change is hard and I think working with someone else makes it easier. With change you have things that go wrong but when you're working with someone else there's a balance.

Consequences for students. A few respondents conveyed that students were the beneficiaries of joint work, an outcome noted by others (e.g., Rosenholtz, 1989b). The majority of these comments were connected to discourse about relatively deep levels of collaboration, such as concurrent implementation. We observed four types of positive consequence for students. First, social relations and cooperative work habits were said by a few teachers to have been enhanced. In many concurrent implementation activities, multi-class groups explored activity centres together. This gave children greater opportunity to interact with others beyond their immediate class. Second, this sort of joint activity exposed students to two or three different teachers thereby enhancing their perspective. As a teacher at Peterson put it, "the kids get the benefit of two philosophies." Another teacher held a similar view,

Instead of one person with a program idea you get five people with a program idea and you get this webbing ... you get a multitude of ideas. And the kids get the benefit of these. (Teacher, Bradgate)

A third consequence for students was that the variety they encountered and the change of pace were particularly motivating for them. "The children were really comfortable and excited about what they got," according to a teacher at Carnegie. Finally, also from Carnegie, there was a sense that student achievement in math problem solving had truly improved as a consequence of the collaborative school improvement project. Student growth was measured for each grade level with tests constructed jointly by teachers.

Factors Supporting Collaboration

On first blush, it might be observed that the schools displayed remarkable similarity in terms of the conditions sustaining joint work in implementing school priorities. Characteristics of the targets for implementation themselves had relatively little to do with the extent to which they were carried out individually or collectively. At Peterson there was a fair amount of activity connected to cooperative group learning, in part because staff had expressed an interest in the technique through the needs assessment process, and in part because it was a strong thrust of the central office. A variety of other initiatives were underway as well. At Bradgate, on the other hand, a wide range of innovative activities were underway simultaneously, including cooperative learning, computer literacy, publishing house, Whole Language, science boxes, and so forth. Where Bradgate appeared, at least at a surface level, to lack a central theme, Carnagie Meadows made up for it in spades. Virtually the entire staff were directly involved in the implementation

of mathematical problem solving. This was a fairly sophisticated school improvement thrust that grew from and was supported by the school's recently developed mission statement with its acronym CREPS (Caring, Responsible, Effective, Problem Solvers) and had as a component the measurement of student growth based upon pre- and post intervention data collection. While there were certainly other priorities at Carnegie the scope of the math problem solving initiative seemed to have predictable effects on implementation (Fullan, 1991) and teachers' joint work.

Personal characteristics surfaced as being moderately predictive of teachers joint work but we were unable to differentiate schools to any great extent using this dimension. At Bradgate, many young teachers assumed leadership roles within the school, partly due to expectations placed on them by veterans and because of their youth and exuberance. Also, a very dynamic music teacher managed to persuade a large contingent to enrol in an innovative specialization course offered by the Ministry. Similarly, at Carnegie, an enthusiastic and energetic teacher-librarian was successful in initiating several "Partner's in Action" programs within the school. On the other hand, the relatively complacent teacher librarian at Peterson Elementary was observed not to be running as extensive nor successful a Partners program at that school. Finally, we found some evidence that suggested collaborative norms within the school may have broken down some of the personal barriers to collaboration described in the literature (Feiman-Nemser & Floden, 1986; Zahorik, 1987; Nias et al., 1989). As a teacher at Carnegie put it,

> *People feel they can ask for help of each other and from the office. I don't know if I would have felt that way in another school where I would approach my principal and say "I'm having a problem with a child." I don't know if they would judge me in a very positive light.*

This is not to say, however, that entire staffs were unified in their receptivity to joint work. Some reiterated the familiar claim that the classroom is the teacher's domain and sanctuary for discretion over decision. Another commented upon how her "lack of organization" was not conducive to extensive preplanning with other teachers. There may be some debate as to whether this ostensible lack of organization is in fact sensitivity to the idiosyncratic nature of teaching (Leinhardt & Greeno, 1986, Shulman, 1989). Finally, a Carnegie teacher speaking of a relatively successful collaborative social studies program reminded us of the pervasiveness of territorialism.

> *The children were comfortable and excited about what they got, but the teachers less so. I think it's just the typical teacher fear of losing control.*

Fixed organizational conditions were found to have only a modest impact upon teachers' propensity to work with one another. For the most part, geography played a role as an enhancement or deterrent to joint work. At Bradgate and Peterson, grade level teachers housed adjacent to one another tended to be more involved. Their grade level peers who were physically isolated tended to work in that mode as well. At Bradgate and Carnegie, school staff rooms were observed to be alive and vibrant especially during lunch and recess. Teachers talked freely about a variety of pedagogical concerns, projects, and personal matters. The "staffroom mafia" was nowhere to be found. Much of the business of sharing occurred here. For Peterson, however, the staff room was geographically remote to many and virtually "unreachable" within the parameters of recess. Staffs tended to meet in several other decentralized locations during break time.

The most potent factors stimulating teachers' joint work in all schools were collaborative norms within the school and leadership. Both of these variables were found to manifest themselves in different ways, however. Each school had very friendly and helpful staffs, especially to newcomers be they experienced or fresh from teacher training. At Bradgate newcomers were expected to join with staff in assuming leadership roles. They we not left behind in a fast paced environment in which they found themselves ill equipped to cope (Little, 1990). Staff believed the school had an image of being a leader in the system and they liked to be on the cutting edge, but not to the extent of uncritical acceptance of innovation. "There are no bandwagons here," reported a teacher. There were definite norms of experimentation at Bradgate.

Carnegie had a similar, yet distinct slant in this regard. There was a sense of cohesiveness and social support. There was also a sense of social pressure directed toward folks who were not enthusiastic about valued directions or projects. The math problem solving project was a case in point. Some teachers were teased or cajoled into participating and ensuring pre and post intervention data were collected. There was an astonishing level of compliance at Carnegie concerning the focus for school improvement. The norms within the school, at least when we visited, were of very focused experimentation. Peterson fell somewhere in-between. On the one hand, experimentation with a variety of innovations was well under way and, on the other, a concerted focus on cooperative group learning, a school system thrust supported by the administration and agreed to by staff, was apparent in at least two of three divisions.

Principals played a key role in fostering and sustaining collaborative norms and activities within the schools. Each had a different leadership style, and in varying degrees, each was having an impact. The principal at Carnegie was perhaps the strongest leader. Although he had some clear ideas about staff direction, he involved them in genuine decision making. We were perplexed as to whether staff were "dancing to the head's tune" or whether the head was "gathering round [him] staff who willingly embraced the same ends [he] did." (Nias, et al., 1989, p. 16). Ultimately, we came down on the side of the latter. He was quoted by a teacher as being known for saying "its your decision, you live with it!" when things went modestly awry. The principal at Peterson, we conceived to be an expatriate of bureaucratic authority, who had recently embraced instructional leadership with open arms. He made a point of maintaining high visibility and saving paperwork for after hours. He supported collaboration through covering classes, scheduling grade level teachers with the same preparation time periods and encouraging staff to shift classrooms in order to be near grade level peers. On occasion he would support grade or division level planning projects with supply coverage and off-campus space. Remnants of his previous life persisted, however, as evidenced by the way he ran long, businesslike staff meetings, for example. Finally, Bradgate's principal "walked into a plum job" according to one teacher, given that staff were already busy running the school. The principal acknowledged this and his commitment to situational leadership. He supported collaboration in a variety of ways including reserving a slot on the staff meeting agenda for dissemination, scheduling common prep time, supporting the teacher-librarian in her efforts to implement Partner's and buffering staff from external intrusions. The principals at Carnagie and Bradgate, in their own ways, exhibited many of the qualities of "transformational leaders" (Barth, 1989; Leithwood & Jantzi, 1990; Sergiovanni, 1989).

SUMMARY AND CONCLUSIONS

We sought to understand in the language of teachers the meaning of joint work and the consequences that accrue as its result. For that reason we ultimately selected schools that were both successful and had collaborative cultures. We make no claims about the generalizability of our data. Norms of isolation do persist and change toward a more professionalized collaborative mode of operation, undoubtedly, will be a long time coming for many schools. We wanted to elucidate the consequences of collaboration by way of highlighting the potential payoffs of reform with the professionalization of teaching at heart. It is necessary to show that the benefits of such an approach are substantial (Little, 1987). Our final sample, we believe, consisted of two schools that were truly collaborative and one that was well on its way. But teachers within them engaged in joint work within clearly defined limits. Information exchange forms of cooperation were abundant. Teachers widely and openly shared ideas and resources and participated directly in non-classroom decisions impacting upon both them and their colleagues. Considerable energy was invested readily and willingly in joint planning, development and preparatory activities. Staffs sought to engage in a variety of opportunities for concurrent implementation of program and innovative projects. Such participation ranged from school-wide improvement efforts involving all staff to smaller grade level work groups working on common and intrinsically interesting curriculum development and implementation. They shared materials, divided the tasks, shared students and simultaneously implemented units . But deeper, more integrative forms of

collaboration involving direct observation and joint delivery were less frequent. Only pockets of such activity were evident. When program met students, for many, norms of isolation persisted.

The consequences of joint work we observed were many and varied. A significant number of them were instrumental toward some purpose. Joint work saved teachers time and effort, enhanced their access to instructional resources, facilitated consensus building and decisions to adopt or abandon innovations. It also led to the development of mechanisms through which they could monitor, appraise and refine their practice. Such rewards were extrinsic and tended to be limited to information exchange and planning levels of joint work. This finding adds to our knowledge about collaborative endeavors. Intrinsic rewards comprised, by far, the most salient feature of our data. They were widespread and vivid to teachers. Colleagues benefited greatly from the collective generation of ideas, enhanced communications, willingness to seek and give aid, improved practice and enhanced repertoires of techniques, and in some cases, educational philosophy, and consistency and unity in organizational goals. Among the more intriguing intrinsic rewards was an enhanced knowledge of students whom they were able to see vicariously through colleagues' eyes. This finding adds to our knowledge in an area where our understanding is limited (Little, 1987). They gratified one another and instilled a sense of belonging in their peers. And while they were doing it, they had fun. Joining staff in the winner's circle were the students who were observed to benefit from exposure to a wider range of peers and the collective wisdom of their teachers. With few exceptions, and there were some notable ones, deeper, more penetrating exchanges and collaborative endeavors yielded a wealth of intrinsic rewards for colleagues.

Organizational conditions not only permitted but actively promoted the collaborative ventures we observed. In particular, principals, through their coordinating, supportive, and, in one case, directive efforts, helped to sustain, if not further, collaborative norms in the schools. These data agree with recent theories about the role (Barth, 1989; Leithwood & Jantzi, 1990; Sergiovanni, 1989). But the teachers themselves were equally responsible. They carried the culture of the school and brought it to bear upon newcomers. They supported norms of learning and experimentation, not unlike others that have been reported (Little, 1982; Rosenholtz, 1989a).

The study has provided us with a close up look through teachers' eyes at the possibilities of collaboration. That vista is particularly attractive at a time of reform and restructuring, but it offers little by way of signposts on how to get there. We need to continue with efforts to monitor school improvement and educational restructuring efforts in order to help chart the course.

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APPENDICES

EXHIBIT B

TEACHING THINKING SKILLS PROJECT

TEACHER-TEACHER INTERACTION PROFILE *

	OBJECTIVE SETTING	PLANNING	DELIVERY	FEEDBACK TO TEACHER	STUDENT EVALUATION
Optimal ↑	joint decision by all teachers involved with grade 5 instruction to pursue same objectives	joint construction of plans by all teachers involved with grade 5 instruction	mobile teacher(s) and combined activity centres	peer coaching (observation and feedback involving all teachers involved with grade 5 instruction)	team marking by teachers
	joint decision by two teachers to pursue same objectives	joint construction of plans by two teachers	mobile teacher(s) or combined activity centres	peer coaching (observation and feedback involving two teachers)	agreement on marking scheme by teachers
	partial agreement with other teacher(s) on objectives	division of labour	exchanging materials	formal discussion of observations	
	inform other teacher(s) of different objectives	informal sharing of plans	individual delivery making use of outside resources	informal discussion of shared anecdotes	sharing marking schemes with teachers
	individual objective setting and informing of teacher-librarian			one-way observation and feedback	
	individual objective setting	individual planning	individual delivery	informal relating of shared anecdotes	
Low				no feedback	individual marking

*the term "teacher" is used to denote both teachers and teacher-librarians

Date: _____ School: _____

Name: _____ Role: _____

[redacted] PROJECT -- INTERVIEW GUIDE
ROUND 1

Begin session with small talk; attempt to put respondent at ease; discuss purposes of the project (to describe varieties of excellence, understand how successful schools got to be the way they are).

1.a. There are many exciting innovations and projects happening in the [redacted] Region. Pick a typical one that your school has been working on over the past while. Describe the project (innovation). Probe about the quality and availability of materials, inservice activities, who was involved, timeframe, etc.

b. Tell me about trying to implement the project.

Did you need to develop significant new knowledge and skills? What changes did you need to make in the classroom?

Did you observe effects on students? What were they? Can you attribute them to the project or your actions to implement the project?

Who else was involved? (system/external change agents, peers, teacher librarian/ IRT, administrators) In what ways? (Objective setting, planning, instruction, student evaluation).

2. What kinds of things helped you to implement the project?

Implementation process variables (COLLABORATIVE activities with change agents, peers, resource folks, administrators)

Characteristics of the Innovation (clarity, scope, relevance, access to materials, assistance, completeness)

Personal characteristics (age, gender, family responsibilities, experience, efficacy).

Fixed organizational characteristics (school size, portables, community, SES, ethnicity, growth rate)

Tractable organizational characteristics (COLLABORATIVE NORMS, socialization, loyalty, peer trust, shared goal setting, leadership, school mission, appraisal practices)

3. What kinds of things hindered your efforts to implement the project?

Implementation process variables (COLLABORATIVE activities with change agents, peers, resource folks, administrators)

Characteristics of the Innovation (clarity, scope, relevance, access to materials, assistance, completeness)

Personal characteristics (age, gender, family responsibilities, experience, efficacy).

Fixed organizational characteristics (school size, portables, community, SES, ethnicity, growth rate)

Tractable organizational characteristics (COLLABORATIVE NORMS, socialization, loyalty, peer trust, shared goal setting, leadership, school mission, appraisal practices)

4. Lets talk a bit about another project. Thinking skills if applicable.

a. Describe

b Implementation outcomes (teacher's knowledge/skills, effects on students)

c. Implementation processes (COLLABORATION, other activities)

d. Factors helping
- implementation processes (esp. COLLABORATION)
- characteristics of innovation
- personal characteristics
- fixed organizational characteristics
- tractable organizational characteristics (esp. COLLABORATIVE NORMS)

e. Factors hindering
- implementation processes (esp. COLLABORATION)
- characteristics of innovation
- personal characteristics
- fixed organizational characteristics
- tractable organizational characteristics (esp. COLLABORATIVE NORMS)

5. Do you have other comments?

a. Why school is successful?

b. How school got to be that way?

c. General/miscellaneous

Date: _____ School: _____

Name: _____ Role: _____

BRADGATE ELEMENTARY SCHOOL
[redacted] PROJECT -- INTERVIEW GUIDE
[redacted]: ROUND 2

Reminder to Interviewer: There are two parts to this interview. First, we are interested in the contribution of professional development activities that happen in and outside the school and that link to collaboration with peers and to school outcomes. Second, we are seeking to understand socialization processes a little better: concepts of traditionalism, support for newcomers, and collaborative activities.

In our last visit we learned a lot about the school and the kinds of activities the people become involved in for professional development. We'd like to look at professional development a little closer this time.

1. **What kinds of external professional development activities do people pursue?** (graduate courses, specialization courses, system wide p.d.)

2. **Are these pursued individually or together? What types of opportunities are likely to attract more than one staff member?**

3. What impact do external professional development activities have on the school? Do people introduce new ideas? How do they go about mustering support?

4. What sorts of internal professional development opportunities are available for teachers?

5. Are these pursued individually or collaboratively? Under what circumstances do people collaborate on these activities? (Probe for performance appraisal, supervision for growth, peer coaching, etc.)

6. What impact do <u>internal</u> professional development activities have on the school? Do people introduce new ideas? How do they go about mustering support?

We are also interested in looking more directly into how the school got to be successful. Perhaps we could spend some time getting your views on that.

7. How do you think the school came to be so successful?

8. Does the school have a strong sense of tradition? In what ways does tradition become apparent?

9. How do newcomers come to fit into the tradition? What kinds of support are they given. What expectations are held for them? Are leadership opportunities made available for them?

10. Do newcomers work with other teachers. How do these kinds of activities get started? What kinds of collaboration take place? Under what circumstances?

INTERVIEW GUIDE ADD-ON

1. Decision to adopt:

2. Institutionalization:

3. Depth of collaboration:

4. Internal communications:

5. Personnel selection:

6. Meaning of collaboration for knowledge use:

Date: _____ School: _____

Name: _____ Role: _____

DOUGLAS ELEMENTARY SCHOOL

[redacted] **PROJECT -- INTERVIEW GUIDE**

[redacted]**: ROUND 2**

At this site we have a lingering interest in two fundamental issues. First, we want to know about the nature of collaboration in the school. We have reason to suspect that two types might be operative: camaraderie among staff toward worker satisfaction ends and secondly, curriculum based collaboration linked to educational productivity issues. It seems likely that the former is more pervasive here and that the latter is superficial and non-penetrating. Lets check it out. Second, we gathered considerable evidence on the problems that were apparent as a consequence of staff turnover. We need to know more about the solutions.

The proposed interview guide will allow us to investigate these issues in the context of two innovations: behaviour management (camaraderie, solutions to problems) and Manipulative Math (curricular collaboration).

1. **We talked last time about many exciting things happening in the school and we'd like to zero in on a couple of those a little more closely now. First of all, we'd like to talk about professional development activities concerning Behaviour (Classroom) Management.**

   a. **In what kinds of activities did staff engage?**

b. **How did this all come about?** Focus here is on the solution not the problem.

c. **Who was involved and in what way?** Probe about informal (teachers rallying together) and formal (p.d. days at the school last fall).

d. **What kinds of effects have you noticed (on teachers, community, students and administration)?**

e. Why have these effects occurred? (Chief factors operative).

Implementation process variables (COLLABORATIVE activities with change agents, peers, resource folks, administrators)

Characteristics of the Innovation (clarity, scope, relevance, access to materials, assistance, completeness)

Personal characteristics (age, gender, family responsibilities, experience, efficacy).

Fixed organizational characteristics (school size, portables, community, SES, ethnicity, growth rate)

Tractable organizational characteristics (COLLABORATIVE NORMS, socialization, loyalty, peer trust, shared goal setting, leadership, school mission, appraisal practices)

2. Next we'd like to talk about the implementation of Manipulative Math in the school.

a. Were you directly involved in this? What kinds of things did you (or colleagues) do in the classroom in order to implement Manipulative Math?

b. Did you work together at all? In what ways? To what benefit?

c. Was manipulative math a success here? Why/not?

Date: _____ School: _____

Name: _____ Role: _____

CARNAGIE ELEMENTARY SCHOOL
[redacted] **PROJECT -- INTERVIEW GUIDE**
SCHOOL: ROUND 2

Reminder to Interviewer: There are two parts to this interview. First, we are interested in "painting a vivid picture of collaboration" in the school and in doing this by focusing on the math problem solving innovation. We are particularly interested in the linkages between components of our framework.
Second, we are seeking to understand "how the school got to be the way it is." Where "oldtimers" can fill us in on historical events, new staff can tell us in detail about socialization processes.

In our last visit we learned a lot about the Math Problem Solving focus in the school. We'd like to look at that initiative a little more closely.

1. **Describe what has happened on this project since our visit at the end of January OR your involvement in this project if we have not seen you before.** Be sure to probe about collaborative activities and involvement.

For the questions below be sure to probe for the following areas and try to press for linkages (e.g., x and y happened because of z):

* SCHOOL LEADERSHIP (goal setting, resource provision, framework provision);
* EMPOWERMENT OF STAFF (freedom to approach in their own way and solve their own problems);
* OVERLOADEDNESS (competing initiatives, principal as gatekeeper, staff autonomy in decisionmaking);
* ORGANIZATIONAL NORMS (everybody is doing it; tie in with school mission).

2.a. How did that project get started?

b. What led to decisions to become involved?

c. What problems have you experienced in trying to implement math problem solving? Why/not?

d. Is math problem solving something that is likely to continue even after it is a main focus? Why/not?

Last time everybody pretty much agreed that [redacted] is a successful school. We'd like to try to get a better sense of how it got to be that way.

3.a. How do you think the school got to be successful?

b. Do teachers from other schools in the system apply to come here because they know it is a good school?

c. Has the gifted program here had an effect on the standards for the rest of the school?

d. Do teachers come here because they are upwardly mobile and they believe people here get promoted into positions of added responsibility?

e. Do school administrators actively recruit and/or select people to work here that will "fit in?"

f. Have there been key events in the past that have helped the school to become successful?

g. What happens to people new to the school?

INTERVIEW GUIDE ADD-ON

1. Decision to adopt:

2. Institutionalization:

3. Depth of collaboration:

4. Internal communications:

5. Personnel selection:

6. Meaning of collaboration for knowledge use:

[redacted]

CASE DESCRIPTION ASSESSMENT

For each of the categories below indicate the extent to which you believe the case description is accurate and complete. Rate the category by circling one of the numbers: Circle '1' if you feel the description is **not accurate at all**; and '7' if you believe it is **very accurate**. Summarize your rating with a few written comments. We are particularly interested in your views about possible misrepresentations or omissions in the report (use the reverse side if necessary). We have also provided space for other comments that you may wish to share.

REPORT SUBSECTION	**ACCURACY RATING (Circle one only for each category)**						
	Not accurate at all						**Very accurate**
Organization	1	2	3	4	5	6	7
Comments:							
Community	1	2	3	4	5	6	7
Comments:							
Staff	1	2	3	4	5	6	7
Comments:							
Administration	1	2	3	4	5	6	7
Comments:							

	Not accurate at all						Very accurate
Professional Devel.	1	2	3	4	5	6	7

Comments:

Instruction	1	2	3	4	5	6	7

Comments:

Summary Comments	1	2	3	4	5	6	7

Comments:

ADDITIONAL COMMENTS:

Number of years at this school: ____ 0-2 ____ 3-10 ____ > 10

Thank you for your participation. Please return in the stamped envelope provided at your earliest convenince. See you in June!

The Ontario Institute for Studies in Education **Institut d'études pédagogiques de l'Ontario**

Trent Valley Centre
P.O. Box 719, 150 O'Carroll Avenue, Peterborough, Ontario K9J 7A1
TEL. (705) 742-8827

[redacted]

December 6, 1990

My colleague John Ross and I wish to invite you and your staff to participate in a study of "exemplary" schools. Your school was selected because it was in the top 10 percent of [redacted] schools in producing student growth in thinking skills in the joint [redacted]/OISE Thinking Skills project.

As you know, there are many different ways in which schools can be successful. Our purpose is to describe these varieties of excellence. We especially want to understand how successful schools got to be the way they are so that schools that are looking for new models of operation might benefit. If your school participates you will be one of four schools in the study.

We plan to visit each of the four sites on a few occasions during the period January to March 1991. During our visits we would like to meet individually and privately with you and your staff to talk about your school, how you go about doing things and how you got to be successful. Later we want to send you a written case report of your school and then come and meet with you and staff to talk about it. We hope your staff will enjoy an opportunity to reflect on a perspective provided from outside. As always, all information that we collect will remain completely confidential and anonymous (see letter attached).

We hope that you will give this matter serious consideration and find an opportunity to discuss it with staff. We plan to contact you by phone very soon to discuss things in more detail. In the meanwhile give us a call if you would like clarification or further information.

Sincerely yours,

B Cousins

Brad Cousins,
Assistant Professor,
OISE Trent Valley Centre.

Encl.

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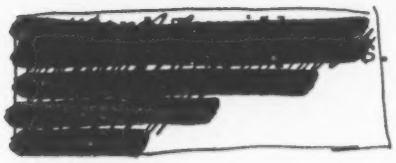
May 10, 1991



Dear [redacted]

Attached please find packages for each of your professional staff, including folks who were not interviewed by us. As promised we have worked up a CASE DESCRIPTION of your school and we wanted to obtain some feedback from the staff.

In each package you will find a covering letter explaining the task; the actual case description using a fictitious school name; a response form to be filled out anonymously; and a stamped envelope addressed to me.

We'd like to have a chance to get a sense of peoples' responses prior to our visit on **June 14 (9:00-10:00 a.m.)**, so we would appreciate your efforts to encourage staff to read this over and respond at their earliest convenience.

Thanks very much for your assistance. Please call me at (705) 742-8827 if you have any comments or concerns.

Sincerely yours,

BCousins

Brad Cousins
Assistant Professor

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The Ontario Institute for Studies in Education
Trent Valley Centre

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MEMORANDUM

TO: School Staff

FROM: Brad Cousins

DATE: May 10, 1991

RE: Successful Schools Project Case Description

Attached please find a package for the successful schools project. As you know we have compeleted our data collection and are now trying to make sense of it all. We could use your help! You could help us in two ways.

First, you could read through the case description attached and let us know what you think of it on the attached survey (we have included an addressed envelope for your convenience). Specifically, we want to know if you perceive any errors or omissions in the report.

Second, we plan to visit the school for an hour or so on one of your p.a. days in June. We like to talk with you in an informal group setting about your perceptions.

We really appreciate your help. This procedure is likely to help us to stay on track and to more efficiently accomplish our goal of describing different ways of being successful. We would appreciate it if you could complete the task within the next week or so. There is no need to include your name on the survey.

Sincerely yours,

BCousins

Brad Cousins
Assistant Professor

Affiliated with the University of Toronto

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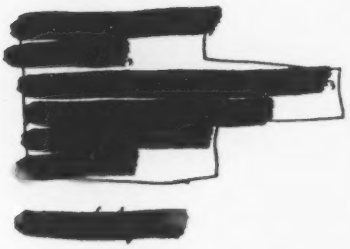
1991 03 27



Attached is a short note responding to some of the questions that teachers have been asking us when we have been in the school. Would it be possible for you to distribute it to the teachers?

We look forward to seeing you again.

Sincerely,

J B Cousins

J. Bradley Cousins,
Assistant Professor,
OISE Trent Valley Centre.

JBC:cc
Encl.

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TEL. (705) 742-8827

TO: Teachers at [redacted] Public School 1991 03 28

FROM: Brad Cousins
OISE Research Team BCousins

RE: Study of Successful Schools

This term a team of researchers from OISE has been interviewing teachers and administrators at [redacted]. The school was selected because it was one of the highest achieving schools in the Junior Division Thinking Skills Project 1987-90. We would like to thank all those who agreed to be interviewed and to respond to some of the questions that we have been asked about the project.

1. Why did you visit the school twice?

We started off with some ideas about why the school might be successful, but we were not able to predict all the interesting and important issues that people told us about when we arrived. The second visit enabled us to explore these unexpected issues systematically.

2. Why did you not interview everybody?

We wanted to but we decided to talk to fewer people for a longer time in order to get deeper into the key issues.

3. How did you choose the people who were interviewed?

There were four people (principal, vice-principal, teacher-librarian and academic resource teacher) who were selected because of their unique roles in the school. The other teachers were selected randomly. We did not ask for volunteers because random selection is more likely to provide a representative picture of the school.

4. Why were some people interviewed twice?

In the second interview we tried to have a balance of teachers who we hadn't talked to before with some repeats. The people we asked for a second interview were those with unique roles in the school or who were randomly selected for a repeat.

5. What happens now?

We are going to write a short report about the school. The report will not give the names of those we interviewed and will not breach any confidences. What it will do is describe our understanding of why the school is successful. Each teacher and administrator will have an opportunity (in a one or two page questionnaire) to give us a private and anonymous response to this description. We also plan to visit the school at a convenient time to talk to staff about our perceptions. If you have any questions or comments about the project that you would like to voice now, feel free to call us at (705) 742-8827.

We have enjoyed our visits to the school and we look forward to sharing our observations.

JBC:cc

Affiliated with the University of Toronto/Affilié à l'Université de Toronto

To: John & Florence

FROM: Brad

DATE: Jan 14, 1991

RE: [redacted] Data Collection and Analysis Procedures

Attached are hard and soft copy versions of our data summary template for Round 1. You will recall our agreed upon conventions as follows.

1. Call up the template "TEMPLATE.WPS" and immediately save as a new file with the name corresponding to the interviewee and school (e.g., [redacted]). School codes are:

   [redacted]

   You should make a back-up copy of the template in case you forget to rename the file (your new file will be automatically saved as TEMPLATE.WPS if you don't rename it).

2. Fill in interview particulars and then proceed to summarize your notes under each of the question headings (denoted by //) in the template. Use normal text for descriptions of respondent's remarks and **bold text** for any interpretations of the data that you make. Also, use "underlined quotes" to identify direct illustrative quotations from the tapes or your field notes. For example:

   Teachers in the junior division tend to work together a lot because they are all in the same wing of the building. "Its so easy for us to walk across the hall and exchange materials and look at plans." **I think she is referring to only two of six junior division colleagues because I happen to know of 4 located in portables.**

3. Print and copy the files for research team meetings. Each of us should have a copy of each interview summary. Also, I will store electronic versions of the data so you will need to periodically supply me with transfer diskettes.

[redacted] PROJECT -- DATA SUMMARY
ROUND 1

Date:

School:

Name:

Role:

//Q 1a Describe innovation.

//Q 1b (1) New knowledge and skills.

//Q 1b (2) Effects on students.

//Q 1b (3) Others involved.

//Q 2 (1) Help -- implementation process variables

//Q 2 (2) Help -- characteristics of the innovation

//Q 2 (3) Help -- personal characteristics

//Q 2 (4) Help -- fixed organizational characteristics

//Q 2 (5) Help -- tractable organizational characteristics

//Q 3 (1) Hinder -- implementation process variables

//Q 3 (2) Hinder -- characteristics of the innovation

//Q 3 (3) Hinder -- personal characteristics

//Q 3 (4) Hinder -- fixed organizational characteristics

//Q 3 (5) Hinder -- tractable organizational characteristics

//Q 4a Describe other project

//Q 4b Implementation outcomes

//Q 4c Implementation processes

//Q 4d (1) Help -- implementation process variables

//Q 4d (2) Help -- characteristics of the innovation

//Q 4d (3) Help -- personal characteristics

//Q 4d (4) Help -- fixed organizational characteristics

//Q 4d (5) Help -- tractable organizational characteristics

//Q 4e (1) Hinder -- implementation process variables

//Q 4e (2) Hinder -- characteristics of the innovation

//Q 4e (3) Hinder -- personal characteristics

//Q 4e (4) Hinder -- fixed organizational characteristics

//Q 4e (5) Hinder -- tractable organizational characteristics

//Q 5a Why school successful

//Q 5b How got to be successful

//Q 5c General/misc comments

APPENDIX D-2

[redacted] **Project** **April 10, 1991**

Notes for Data Analysis

The following list of codes and definitions was derived from our conceptual framework. It is intended to provide a starting point. Codes are to be applied to specific chunks of text in the interview summaries. A chunk of text is defined as descriptions, verbatim quotations, and/or **interviewer interpretations** that pertain to a single "train of thought." We will likely need to revamp the coding scheme as we become immersed in the analysis and unanticipated elements surface in our data. While it is important to allow for such flexibility it is also useful to refrain from developing new codes that are too specific.

When coding responses, it is helpful to augment codes with additional symbols. Adding the symbol (+) indicates that the influence was positive as in the case of a teacher having substantial experience in team teaching situations. Conversely, the (-) symbol might indicate highly limited, nonexistent, or negative prior experience with team teaching.

Analysts should also be sensitive to the distinction between effect variables and influences on them. Sometimes a response might suggest, for example, that teacher learning (KU-LRN) has increased noticeably due to integrated collaborative activities such as two teachers jointly doing an input session with students (IP-CT-ST). Here we have an inferred casual explanation that could be reflected by "double coding" the response.

For example:

IP-CT-ST(+)
KU-LRN

Note that the '+' sign is used to indicate the positive influence of a single causal variable or factor on an effect variable. If the chunk of text had indicated that merely that teacher learning had taken place for no reason that was made apparent the simple code KU-LRN would suffice. Similarly, if the chunk suggested that teacher learning had been inhibited for no specified reason KU-LRN with no '+' sign would be the appropriate code. It is only when we observe an explicit connection made between two variables that we use the + or - signs. Analysts should take care (within limits) not to make inferences.

Sometimes several factors lead to a specific effect. The following pattern codes represent a more complex situation.

TO-LD(-)
PC-EXP(+)
IP-CT-U(+)
KU-LRN

This pattern code might be applied in the case of teacher learning (KU-LRN) being attributable to integrative collaboration (IP-CT-U) occurring as a consequence of fresh ideas and pedagogical approaches being brought in by a relatively new, but experienced teacher (PC-EXP). This effect may be partially inhibited or offset by a principal from the stone ages (TO-LD) who believes that desks should be in rows and teachers should only assume responsibility for their own class.

When coding data it will be useful to observe the following conventions:

1. Use pencil. You will likely need to erase many codes due to a change in your initial analysis, a desire to reorder codes, etc.

2. Keep the coding sheet and framework diagram handy.

3. Pattern codes have most antecedent (left of diagram) codes at the top and effect codes at the bottom.

4. Where several patterns or individual codes are applied to a single paragraph, demarcate the chunk of text using square '[' ']' brackets.

5. Code in the left hand margin only. Delineate patterns codes with a "pencilled-in" left square bracket '['. For example,

```
TO-LD(-)        (An outdated principal
IP-IN-U(-)       who discourages collaboration
KU-LRN             inhibits teacher learning and development.)
```

Try to produce legible code summaries where it is clear which codes apply to which chunks of text. We need to remember that Carolyn will be asked to apply the codes in the TAP computer program.

To follow is the list of "start" (and added) codes organized by our framework. Remember to invent new codes where appropriate.

May 2, 1991

List of "Start" and Added Codes

SO - Student Outcomes

SO-K	Knowledge acquisition, content retention
SO-SK	Skill development
SO-AF	Affective development
SO-U	%Undifferentiated student outcomes, successful school.

KU - Teacher Classroom Practice and Knowledge Use

KU-LRN	Teacher learning, knowledge acquisition, skill development, affective development
KU-DEC	Teacher decisionmaking
KU-U	%Undifferentiated teacher knowledge use, successful school

IP - Implementation Process
- **IN - Individual**
- **CT - Collaboration with peers (fellow teachers, librarian)**
- **CO - Collaboration with others (e.g., admin, parents, aides, consultants)**
- **U - Undifferentiated**

IP-**-OBJ	Objective setting
IP-**-PL	Planning
IP-**-ST	Teaching and instructional strategies
IP-**-MAT	Teaching and instructional materials
IP-**-EV	Student evaluation and assessment
IP-**-PAR	Interaction with parents
IP-**-U	Undifferentiated

IC - Characteristics of the Innovation

IC-CL	Clarity of the innovation
IC-SC	Scope, breadth of the innovation
IC-MAT	Availability of materials
IC-ASST	Availability of in-person assistance
IC-CON	Congruence of innovation with local goals, relevance
IC-U	Undifferentiated characteristics of the innovation

PC - Personal Characteristics

PC-FAM	Family status (maternity, single parent, etc.)
PC-ED	%Educational background, subject area specialization, teachers ability and competence
PC-VAL	Personal values
PC-EXP	Background experience, years of service
PC-CMT	%*Personal commitment to educational issues and the profession, loyalty to the school
PC-U	Undifferentiated Personal characteristics

FO - Fixed organizational characteristics

FO-SIZ	School size, highest grade level
FO-COM	Community
FO-PL	Physical plant, inclusion of portables
FO-GIF	Gifted program
FO-RES	Availability of resources
FO-TR	*School tradition and history
FO-U	Undifferentiated

TO - Tractable organizational characteristics

TO-COL	%Collaborative norms in the school, sense of obligation to act collectively
TO-SOC	Social interaction among staff
TO-CMT	**%Deleted: use PC-CMT**
TO-SH	%Shared goal setting, staff survey or systematic collaborative goal, objective or priority setting.
TO-LD	Leadership of administrators and staff
To-SOP	%Standard operating procedures, teacher eval, hiring
TO-STR	Organizational structures (adv. cttee, div & staff mtgs)
TO-BP	Board policy
TO-TM	*Time management ("Not enough time to do x,y or z")
TO-SI	*System sponsored or based inservice program.
TO-LI	*Locally (school) sponsored or based inservice program.
TO-U	Undifferentiated

* Added after data coding had commenced.
% Code refined after data coding had commenced.

APPENDIX D-4

Scheme for Reliability of Coding Analysis

The following scheme has four dimensions corresponding to agreement about: first order codes; higher order codes; causal relationships; and chunking. Each dimension ranges from low to high agreement and is scored on a scale of 1 to 3. The scheme assumes that common interview summaries are independently coded by three data analysts.

First Order Codes	Higher Order Codes	Causal Patterns	Chunking
3. - three coders agree on core set of codes; - a minority of add'l codes may be added by some coders.	3. - three coders agree on core set of codes; - a minority of add'l codes may be added by some coders.	3. - three coders agree on causal pattern; - direction of causal influence is consistent.	3. - three coders agree on chunk.
2. - two coders agree on core set of codes; - a minority of add'l codes may be added by one coder.	2. - two coders agree on core set of codes; - a minority of add'l codes may be added by one coder.	2. - two coders agree on causal pattern; - minor variation in direction of causal influence.	2. - two coders agree on chunk.
1. - no agreement among coders.	1. - no agreement among coders.	1. - no agreement among coders.	1. - no agreement among coders.

BRADGATE ELEMENTARY SCHOOL

Organization

01-6	Number of students? Closer to 300 I believe.
05-7	The location of specific classrooms enable teachers partner on specific topics.
12-6	2 out of 3 special classes are housed in the portables. A more inclusive policy to promote integration would be to locate them within the body of the school.

Community

01-7	Very supportive community. Contributes greatly to a healthy school environment.
05-7	Community provides excellent support and work with staff towards the common goal.
06-6	Generally, parental expectations for their children are high, a fact not stressed enough in the report.

Staff

05-7	Accurate!
12-6	I would not say there are no cliques, but rather, as you have mentioned, staff are professional and do not focus upon "preferred groupings" when school tasks must be done.

Administration

01-6	Very supportive and nonintrusive.
05-7	Administration is part of school team.
06-5	P.D. sessions focused in divisional meetings, usually not staff meetings.

P.D.

05-7	All members are able to take part in projects of personal interest. No one really feels pressured, but volunteer or take the initiative.
10-6	Most professional development activities have been laid out by the Board. You make it sound like our principal organizes all in-service sessions.

Instruction

07-6 ...except that tr's also introduce innovative and worthwhile programming together in grade levels and are interested in upgrading programs. They were well ahead of many schools in their implementation of whole language and process writing.

10-4 I did not appreciate the sentence--second paragraph: "The program was not well implemented by the previous librarian..." I find this comment very unprofessional!

12-7 Teachers are also very willing to accommodate children integrating from the Sp. Ed. classes.

Summary Comments

Additional Comments

01 An interesting, accurate case description.

03 This report appears to reflect the feelings of all administration and teaching staff. In the area of administration, the roles of the principal in maintaining the excellent quality of the school was somewhat inflated, as this school would function very effectively with any principal in place.

07 Your research project has triggered much thought regarding our school and how each of us sees it. It was timely in regard to one mission statement this year--your study was somewhat of an extension of that, plus it was a positive lead in to our 25th anniversary. It was an opportunity to validate our perceptions and values regarding our school, community and profession.

09 Well done! I think your report is a real and true description of our school.

DOUGLAS ELEMENTARY SCHOOL

Organization

02-6 Having weekly newsletter ahead of time is great! Enjoy regular staff meetings and given time limit.

04-6 Why not specify: 12 year old building, 7 portables on site?

07-3 There was no mention of how poorly the staff lunchroom was, and the total lack of privacy. It's a catch all room for all and everyone!

14-5 You failed to mention other unique programs offered at the school.

Community

02-5/7 I have lots of involvement with parents, personally. Accurate description of neighbourhood.

03-5 Parents are not always as supportive as they appear to be on the surface. Many are very involved in careers and as a result children are not given support needed.

07-5 I question the last sentence "show strong support," this is not necessarily as positive as the report makes it sound. Perhaps it's a case of "too much of a good thing."

12-7 Parents perhaps have too much say!

Staff

03-4 Do you think that the diversity of the instructional methods among staff is a bad thing? I feel that this adds to the community of the staff and we all learn from each others ways. We need many different teaching strategies. I also feel that there is a sense of loyalty among the staff, especially when the issues are clear and it is our business to know the issues and facts. Sometimes it is better to mind one's own business.

07-7 It is difficult to develop a "strong sense of instructional or curriculum mission at this school with the community's "show(ing) of strong support."

12-3 Some of the staff left out of loyalty. The second year, they left because they were dissatisfied with the administration.

14-7 A strong, cohesive staff.

Administration

07-6 They are not as supportive discipline-wise as the report stated due to pressures beyond their control (i.e., "show of strong community support", social and political pressure).

12-6 I hope the current administration stays intact for a few years.

14-5 More work needed on discipline with more support from administration.

14-1 Discipline problems are not dealt with appropriately. There is something wrong when children ask to be sent to the office. We are not informed of office consequences. Office appears to be afraid to deal with discipline problems.

P.D.

07-7 OK

14-5 Still difficulty to get release time for professional development activities.

Instruction

01-5 Partners in action does not occur with all staff and librarian. There would no be adequate time within the year for this to occur. Not all intermediate teachers "participate with enthusiasm" in the reading buddies program. Generous sharing does occur.

07-6 OK

12-5 Not all classes take part in the Partners in Action.

14-4 Volunteers and aides are found predominantly in primary areas, not throughout.

Summary Comments

02-6 Why not?

07-6 OK

14-5 Hopefully, if the Board elects to keep administration at this school. Stability is needed.

16-1 Lack of leadership is shown. There is little support for teachers in dealing with problem children.

17-? I don't like the "relatively young and energetic staff" leading to successful school. This implies that only with "relatively young" staff the school will rise to success. Poor wording! Not necessarily true, either!

Additional Comments

01 As a teacher new to the school, this case description appears reasonably accurate--which may indicate that I, like you, am still retaining an outsider's perspective. For your information, some teachers, who had not been interviewed, did not readily understand that this case description was intended to reflect our own school. A covering letter that was clearer in its objectives, might have been more helpful.

10 Overall, found comments pertinent, objective as well as descriptive. Saw report as a piece of fair reporting that is beneficial to future planning.

14 All staff should have been involved in this study as biases do exist. Why insult our intelligence by suggesting that this school scenario is other than our own school? It is obvious!!

16 We are not kept informed. Administration has a lot of policies re lunchroom behaviour, discipline problems, yard rules, truancy, etc., but these are not followed up on.

18 What is this? Why is it so important that you compile a superficial anecdote of our school and then disguise it with a fictitious name? Why must I comment? I had no input. If I say no, am I calling my colleagues liars? Whose money and time have you wasted with this? This tells you nothing about what makes a "successful school." This doesn't even define a "successful school." My inquiries discovered this to be the outcome of a "Thinking Skills" programme. Where is the thinking in this piece of rubbish? Why are you planning to waste my valuable working time on a P.A. day to talk-about this?

CARNAGIE ELEMENTARY SCHOOL

Organization

01-5 The physical structure is not conducive to effective organization. Classes of same grades are not always beside one another.

04-5 Although the gifted programs may be beneficial to the school in some ways, they also prevent the normal children in the area from getting as much representation in Science Fairs, Musicals, etc., as these functions are taken over by the out of area gifted children.

06-3 School population is incorrect--about 425 students. Gifted is in primary--Gr. 3.

08-3 The gifted classes do not always offer a positive impact. They have privileges regular classes do not enjoy and too often are chosen to represent our school, not giving good regular students this opportunity. They also have a budget--we do not, plus carpet, computer. They do not integrate well--have a superior attitude.

Community

05-5 There are not that many parent volunteers. The co-op students have been an added bonus to various areas of the school curriculum.

Staff

05-4 Some years ago there was some shuffling done by the board of staff from one school to another.

07-6 There is a large core of staff that have not "turned over" in over 10 years. I can't think of anyone straight out of teacher's college.

Administration

P.D.

05-5 There has been no mention of conferences which take place out of the board area. Some of these have been very valuable as to ideas and strategies.

07-6 Not all staff enjoy these "extra" curricular projects, but everyone does their best.

Instruction

04-4 The collaborative approach is more representational of the junior division than of the primary grades.

Summary Comments

01-6 Well, we're not that perfect!!

Additional Comments

08 [redacted] is a successful school--successful for teachers and pupils. The staff reflects a caring attitude and has developed a strong, sound curriculum. Leadership by our principal is responsible for much of our success.

PETERSON ELEMENTARY SCHOOL

Organization

06-7 Like staffroom comment.

07-4 Library requires increased amounts of A.V. equipment.

10-5 Newly "created" staffroom (actually an old classroom). Library is "fairly" well equipped (not for gifted learners).

12-6 Re staffroom--changed "newly constructed" to "recently converted." The staffroom is quite inadequate. There is a cold water tap, broken down old fridge and a coffee pot. The pathetic stove has never been plugged in.

Community

08-7 Having worked in other communities I feel the community is a very positive force and reason for this school's success.

12-5 Change "Several children..." to "A number of children..." One primary class has a majority of students coming from single family homes. Each of the other classes has "several."

Staff

12-6 Change "are unable" to "find it inconvenient" (re staff on the top floor).

Administration

01-4 Leadership is not as strong as indicated.

06-6 I feel this school has lacked a stable office for several years due to changes that were going on even prior to our new ones. We have really had V.P.'s in and out quite often.

07-2 Instructional leadership training does not necessarily translate into instructional leadership action. "Strong leadership" does not necessarily apply to the VP role. Dynamics between P & VP seemed strained most times and the VP often spoke poorly of the P and other staff members occasionally.

08-7 ...but the V.P. was a driving force for change and we miss him.

P.D.

07-3 Staff advisory council takes direction from the admin. They are/or seem to be the body through which the admin. presents their desires in this area.

Instruction

Summary Comments

07-6 This school is not without its difficulties, however, we/staff/students/parents will continue to strive for "success."

16-7 Change "good mix" to a more appropriate word "showing positiveness."

Additional Comments

03 You have accurately described this school, however, I wonder how "different" we are from many other schools and I wonder what "new" approaches other schools could learn from this report.

06 Sounds like a great place! No one will ever complain. It is a lovely place to work mainly due to staff and admin. and kids. Thanks.

08 It will be interesting to see your final report. I'm not sure, personally, whether the school and community has attracted certain teachers and therefore the admin. and teachers have created a successful school or is the community and children that is the deciding factor in our success (or a combination of the above).

09 Discipline needs to be focused on. More teachers and administration should be in halls to avoid problems in the future.

10 A very good consensus, I would say.

11 Nicely done. I found myself re-reading this report because of the good feeling it left me with. It really permits one to focus in on all of the good things going on at our school. Thank You!

12 I noticed that you avoided the "D" work in your report. The staff generally exercise firm and consistent discipline. This leads to individual success of the students and a climate where staff are not being "driven crazy" by kids who get to run the school. There are some exceptions on staff and the infrequent failing of admin. to deal with some serious incidents adequately. Generally though, our discipline works. Without it, this would be a dramatically different report we would be evaluating.